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The Week in Textiles

Outlook . . .

Despite irregularity of reports from various textile markets, general trend is toward improvements. . . . . Cottons move in good volume; wool goods slowed up by warmer weather; all knit goods active; broadsilks spotty.

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Southern Strikes . . .

Labor situation in southern textile mills took new and more serious turn when three strikers were killed and twenty wounded Wednesday at Marion, N. C., as sheriff and his deputies broke up picket line in front of Marion Mfg. Co. . . . . Violence followed walkout of between 100 and 200 union men on night shift, said to be due to belief on part of union men that company was not living up to agreement reached Sept. 12 when arbitration concluded a six weeks' strike. . . . . Mill denies violation of agreement. . . . . Responsibility for start of shooting not fixed as this issue goes to press.

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Tariff . . .

Doubt as to whether this Congress will pass any tariff bill was given emphasis when Senate, by vote of 47 to 42, on Wednesday adopted Simmons substitute for Finance Committee's recommendation as to flexibility. . . . . Simmons ammendment embodied the Norris proposal, and as it stands takes from the President all power to change tariff rates independently of Congressional action. . . . . Of course flexibility question is not finally settled by Senate vote; may be brought up again when Senate as a body—it is not acting as a committee of the whole—passes on Smoot bill and various parts thereof. . . . . Possibility exists that Republican regulars will prefer no bill to one containing even the Simmons substitute as to flexibility.

* * *

Rayon . . .

Do cheaper merinos menace rayon? . . . . . Lord Barnby, head of Francis Willey & Co., international wool merchants and top makers, who arrived in this country this week on his annual visit, believes they do. . . . . He feels that lower wool values are going to make a serious cut in rayon use. . . . . By a strange coincidence, H. Dawson, English wool authority, reaches a similar conclusion in his September review. . . . . However this view is not taken very seriously by many in close touch with rayon industry, particularly since bulk of rayon goes into goods that are decidedly non-competitive with wool.

* * *

Cotton . . .

Government crop report next week, but guesses in order now. . . . . Dr. Haney, editor of *Textile World Analyst,* believes crop has changed little and is likely to be between 14.8 and 15 million bales. . . . . Since raw cotton supplies are ample, but mill consumption and exports backward, he feels market is in position to respond to bearish developments more readily than to bullish ones.

* * *

Wool . . .

Machinery activity in wool manufacturing industry, as a whole, was higher in August than in July and also exceeded that of August last year. . . . . In looms, increase was most noticeable in those of 50-in. reed space or less, where active machine hours represented 61.5% of single shift capacity against 60.3% in preceding month and 48.3% in August, 1928. . . . . Activity in woolen spindles was somewhat under that of July but in worsted spindles was materially over the previous month.

* * *

Hosiery . . .

Another association enters the hosiery field, bringing the total to four. . . . . The latest is an organization of 30 manufacturers of full-fashioned hosiery, operating union mills, who signed an agreement recently with the American Federation of Full Fashioned Hosiery Workers. . . . . Purpose: Primarily to deal with future problems which may arise in mills employing union labor. . . . . Name: Not yet decided.

Tub Silks . . .

New names for old. . . . . "Lavelle" will be future designation for tub silks, as result of national contest conducted by Spun Silk Research Committee. . . . . Winning suggestion was from Paul Hyde Bonner, vice-president of Stehli Silks Corp., and was one of 2,000 names submitted. . . . . Complete plan prepared for merchandising of "Lavelle" fabrics, and specifications

drawn up. . . . . This follows precedent of artificial silk manufacturers, in selecting "Rayon"; and of mercerized yarn producers, in choosing "Durene."

* * *

Cotton . . .

Why all the bother about synthetic "artificial wool"? . . . . . A farmer near Gaffney,* S. C., recently reported finding a cotton stalk with bolls of verdant fibers that resemble wool in texture. . . . . Incidentally, it was stated that the lint was mixed green and white but that the seed of the unusual plant was deep green.

**Editor's Note*—The name of the town has nothing to do with the case.

* * *

Wool Tariff . . .

Famous—or infamous, according to point of view—Schedule K would lose its notoriety if American farmers would grow enough wool to make us independent of the rest of the world, in the opinion of Charles J. Webb of Philadelphia. . . . . He considers this the best way to remove the wool schedule of the tariff from controversy and future tinkering.

* * *

Colors . . .

The 46 colors which will appear on Spring, 1930, woolen card to be issued shortly by Textile Color Card Association are psycho-analyzed by Margaret Hayden Rorke, managing director, as "colors with a temperament, for while they are of the intense brilliant type they are nevertheless decidedly positive in character and possess a subtle vitality." . . . . "Reflecting this new feeling," adds Mrs. Rorke, "these spring hues will provide a sharp complement to sun-tanned skins." . . . . Greens will have a prominent place, with blues—notably those with purplish cast—also outstanding. . . . . Browns in two new interpretations, "virile in tonality," will also rank. . . . . Beiges still retain their place in fashion picture but this range appears in modernized versions.

* * *

Linen . . .

J. Ramsay MacDonald is not the only Britisher making an official pilgrimage to this country this month. . . . . Twenty of his countrymen, representing the Irish and Scottish linen industry, will arrive Oct. 14 to study modern merchandising methods. . . . . Advance information states that this visit is "at the behest of the Prince of Wales."

* * *

Fiber and Feathers . . .

It sounds strange but the Rayon Institute says it's true. . . . . Ostrich feathers are being mixed with wool, rayon and other fibers in the weaving of a fabric. . . . . A famous French firm has introduced ostrich to the fashion scene in this way. . . . . Usually wool for warmth and rayon for decorative purposes, are used as the base of these materials. . . . . The ostrich feathers form tiny "nubs" and occasionally protrude out of the fabric like the new feathers of a fledgling.

Hosiery . . .

Hand-painted hosiery is being manufactured by a mill in Burlington, N. C., for exclusive trade. . . . . But that's only half the story. . . . . It's for men, not women. . . . . A crew of 32 girls is kept at work dotting or putting in the required figures as ordered. . . . . A fine grade of paint is used which, it is claimed, gives a distinctive design which wears well and is pleasing to the eye.

* * *

Underwear . . .

It must be time to get out your "heavies," judging by conditions in underwear trade. . . . . Jobbers and retailers who have procrastinated thus far, are flooding markets with rush of last minute orders. . . . . As result of this spot business, many mills are experiencing difficulty in making shipments.

* * *

Wool Consumption . . .

More wool was used by domestic manufacturers in August than in any month this year with exception of January. . . . . August total, reduced to grease equivalent, was 52,644,162 lb. against 47,295,901 lb. for previous month and 45,102,626 lb. for same month last year.

* * *

Foreign Trade . . .

Orators who have expanded in the past on the subject of "King Cotton, which preserves the favorable balance in our foreign trade," have been robbed of their ammu-

New Uses for Old Textiles *and* New Textiles for Old Uses

African Art Transplanted to Paris. Hand Woven Palm-Fiber Used for Beach Robes and Sandals to Match

□

London Offers Silk Blouses and Shorts as the Chic Thing for Male Office Workers

nition. . . . . A new leader in America's export trade appeared during the first half of 1929 when the automobile took first place from cotton, the undisputed leader since the Civil War. . . . . A review released by U. S. Chamber of Commerce shows that exports of automobiles, parts and accessories for first half year totaled $339,160,000, an increase of 36.4% over same period a year ago, while at same time exports of raw cotton amounted to $319,821,000, a decline of 13.9% as compared with same period of 1928.

* * *

Cotton Bootlegging . . .

And now we have a cotton bootlegger. . . . . Luther Elmore, a cotton buyer, near Athens, Ala., was arrested recently when it was reported that he had purchased a bale of cotton from a negro farmer after dark. . . . . This resurrects an old Alabama law which prohibits buying and selling of cotton after dark. . . . . Mr. Elmore claims the purchase was made in the afternoon.

* * *

New Uses . . .

Entire personnel of finishing department of American Rolling Mill Co. now wear white duck trousers and white shirts while on the job—with salutary effect, it is said, upon safety of employees and quality of product. . . . . Members of White Oak Bible Class, at Greensboro, N. C., celebrated "Overall Day" by attending Sunday School on a recent Sabbath dressed in blue denim overalls.

* * *

Wool Homespuns . . .

Fred Seely, owner of Biltmore Industries at Asheville, N. C., manufacturers of wool homespuns, sent his foreman recently to Scotland, France and England to see if he could pick up something new about the homespun business. . . . . The foreman came back, after careful investigation, to report that there was nothing in any of those countries to compare in size with the Biltmore Industries. . . . . A large new plant is being constructed to take care of the constant growth.

* * *

Cotton . . .

According to "Flashes of Fashion," style bulletin of The Cotton-Textile Institute, fabrics most in demand for interior decoration fall into four major groups: (1) Heavy cottons that look hand-woven in modern design; spongy weaves in solid colors flecked with white; osnaburg covered with crewel embroidery; (2) printed cretonnes, chintz and broadcloth; (3) sheer cottons such as organdie, net and voile (both printed and plain); (4) plain sateen, broadcloth, oilcloth and pique. . . . . Bulletin states that cottons are more important just now for interior decoration than ever before.

* * *

Rayon . . .

Introduction of rayon blankets to British market causes something of a sensation there. . . . . These are made from a specially prepared spun rayon and the trade feels that they have real possibilities. . . . . Manufacturers claim that, weight for weight, they will give equal wear and washing qualities to an all-wool blanket, and will not turn yellow as some wool blankets do when washed.

Bed-Covers . . .

Even beds are going modern. . . . . Just as women once swathed themselves is many layers of petticoats and whatnots, so beds for winter sleeping long have been piled deeply with blankets and cumbersome thicknesses of other covering. . . . . According to P. S. Palmer, of New London, Conn., the modern woman is learning that deep piles of heavy bedclothes are no more essential to warmth, comfort and protection than was the trunkful of raiment which the well-dressed woman suspended about herself not so many years ago. . . . . Lightweight, insulated bedcovering, he states, is taking the place of heavy, compact covers.

* * *

Research . . .

W. E. Emley, of Bureau of Standards, has issued invitations for meeting in Providence, Oct. 16, to discuss further the plan of organizing a technical society to concern itself exclusively with fundamental textile research. . . . . Mr. Emley has found that differences of opinion have developed as to whether or not the field could be covered by existing societies but finds unanimity of opinion that more should be done to stimulate scientific research in this industry.

* * *

Cotton . . .

Use of cotton in industry, in the home and for wearing apparel was shown in comprehensive exhibit at Mid-South Fair at Memphis, Tenn., which opened Monday. . . . . Exhibits were arranged under auspices of Department of Agriculture, Department of Commerce and The Cotton Textile Institute. . . . . Proved to be of decided educational value to the many visitors.

The Textile Trend

Cotton Textile Markets: Cotton goods trading of a good volume but all are not sharing in general improvement. Irregular surface appearance results. September sales ahead of August and are exceptional in certain quarters. Prices and statistical positions of several lines have improved, notably print cloths and drills. Some colored goods have been selling in good volume, but producers complain of inadequate return.

Wool Textile Markets: Recent warm weather slowed up what had been an active wool goods market. Spot demand still good, centered on plain shades of dark brown and blue. Former are scarce and the impression is that worsted stocks are low. Cheviots are poor except for sports wear. Clear finished goods gain interest. Twist cloths and gabardines selling well. Brisk trading in worsted knitting yarns continues; weaving demand improves; prices steady.

Knit Goods Markets: Increased interest in hosiery, especially fancy half-hose, and full-fashioned. Bathing-suit demand very active, and mills may be sold up before end of year. Good call for heavyweight underwear for prompt delivery. Market is active but as season started late total results are not unusual.

Silk Textile Markets: Raw silk continues downward; prices drop 5 to 10c. in face of indifferent buying. Thrown silk also declines. Spun silk improves; prices firm and demand good. Broadsilk situation spotty; active call for fabrics for southern wear, especially chiffons.

Durene Campaign Gets Underway

J. P. Holt Sees Former Production Peaks Bettered

PHILADELPHIA.

DURING the last year those in the yarn section of the industry have adopted a new term, Durene, and members of the Durene Association, have completed plans to make this name as familiar with the consuming public in the United States and Canada during the next twelve months, as it is to the yarn and knitting trades at present.

The name has been registered in the United States Patent office and signifies a yarn having a base of superior grades of cotton fiber which has been treated to produce luster and increase strength, elasticity and absorption.

A national consumer advertising campaign will get under way this month and J. P. Holt, of Aberfoyle Mfg. Co., chairman of the Durene Publicity Committee, and one of the leaders of the entire project since its beginning, foresees an expansion in production in the United States, that will "eventually exceed that of peak periods of old." His opinion is held by other expert observers, several of whom point to the trend toward longer skirts as an important factor in assuring success to the campaign. Mr. Holt outlined the project in a statement to TEXTILE WORLD.

"With increasing interest being evidenced in Durene by textile-apparel manufacturers throughout the United States and Canada, which in turn is reflected in greatly enlarged yarn sales, members of the Durene Association of America are highly pleased with the progress made to date in their recently launched merchandising-advertising campaign, and are optimistically looking forward to continued rapid advancement toward their objectives," Mr. Holt said.

Increased Production Coming?

"Interviews with representatives of firms affiliated with the organization reveal the definite conviction that the industry stepped off with the right foot in its cooperative undertaking, and that by keeping noses to the grindstone in all branches of the movement almost amazing accomplishments may be expected. This statement is, in itself highly important as it is in direct contrast with the lukewarm attitude of some processors prior to the campaign's inception. Even at this early stage of the activity, complete rehabilitation of the industry together with an outlet that will eventually exceed that of the peak periods of old, is foreseen.

"During the past two months, members of the association's merchandising counsel division have been working with leading manufacturers of hosiery and underwear, emphasizing the merit of Durene yarn in made-up products and showing these producers how they would benefit by cooperatively employing the Durene label on undergarments and hose meeting the organization's standards. As a result a large number of American mills, as well as some in Canada, have placed Durene numbers in their lines, with subsequent distribution to wholesalers and retailers. The latter, in turn, are understood to be meeting with much success in merchandising these products.

Identifying Label

"Durene Association members as well as those licensed to use the identifying label are strongly of the opinion that the Durene mark, carrying back of it the policies and standards of the organization, presents a real opportunity for the manufacturing and retail branches of the textile-apparel industry to trade up on garments and accessories that are so marked. In addition, there is the common objective to eliminate that evil so long existent in the trade—misrepresentation of fabric quality by a few unscrupulous dealers; the feeling being that the Durene label and standards will eliminate this in such garments as it is employed in.

Cooperation with Knitters

"Another illustration that the organization is as much interested in having licensed manufacturers turn out quality products as it is in selling its yarns, is the fact that it continually emphasizes to producers that when they add a number to their line that carries the Durene stamp or the Durene name the material will be well knitted and the product of dependable standard in construction, manufacturing detail and size.

"With the trade paper advertising campaign now in full swing, backed by a broadside sent to approximately 32,000 American and Canadian manufacturers, wholesalers and retailers, outlining the objectives of the association, setting forth its policies and detailing the consumer national advertising drive that will back the distributors, it is learned that many producers, who have been sitting on the fence, have already jumped into the fold. Action on licenses for these applicants is being speedily but carefully taken care of by the association.

"Cooperating with the Durene Association of America, insofar as the activity dovetails with the best interests of members of their group, is the Merchandising Division of the Knit Underwear Industry, which is sponsored by the Associated Knit Underwear Manufacturers of America. This latter organization has pointed out to its membership the importance and advisability of incorporating Durene numbers in their lines, emphasizing the benefits to be reaped as a result of the campaign now in progress. The Division of Design of the Knit Underwear Industry has prepared and recommended to members certain models in all Durene and in combination with other yarns, and these have been accepted in many instances and are now in process of manufacture and distribution.

Millions To Be Reached

"By the same token, the hosiery industry has been posted on the Durene Association's activities with gratifying response. With matters proceeding at the present rate, it is expected that national distribution will have been effected and country-wide merchandising begun before the inception of the full-page advertising campaign in two important consumer publications in mid-October. The publications are expected to carry the Durene sales messages to millions of persons.

"It is being used as all Durene or in combination with wool, silk and cotton in men's and women's union suits, women's vests and pants, children's strap suits, children's vests, infants' shirts, men's jerseys, boys' union suits and jerseys. In stockings it is used as all Durene for women and misses, and half hose for men; for feet and tops in real silk stockings and half hose, for fancy half hose and five-eighths length for children, and fancy anklets for misses."

TEXTILE CALENDAR

International Raw Silk Technical Conference, Hotel Astor, New York, Oct. 15 to Nov. 8, 1929.

The Cotton-Textile Institute, Annual Meeting, Biltmore Hotel, New York, Oct. 16, 1929.

Committee D-13, American Society for Testing Materials, Fall Meeting, Providence, R. I., Oct. 17-18, 1929.

Eastern Carolina Division of S.T.A., Fall Meeting, N. C. State College Textile School, Raleigh, N. C., Oct. 18, 1929.

Philadelphia Manufacturers Association, Annual Meeting, Manufacturers Club, Philadelphia, Oct. 24, 1929.

Texas Textile Association, Semi Annual Meeting, Jefferson Hotel, Dallas, Texas, Oct. 25-26, 1929.

Western District of the Knitted Outerwear Manufacturers' Association, Annual Meeting, Milwaukee, Wis., Oct. 29, 1929.

National Association of Cotton Manufacturers, Annual Convention, Copley Plaza Hotel, Boston, Oct. 30-31, 1929.

National Power Show, Grand Central Palace, New York, Dec. 2-7, 1929.

Silk Association of America, 58th Annual Dinner, Hotel Astor, New York City, Jan. 16, 1930.

International Exposition, Textile Exhibitors Association, Mechanics Building, Boston, Mass., last week in April, 1930.

Ninth Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 20-25, 1930.

National Cotton Show Held

Memphis Exhibit a Comprehensive Showing of the Cotton Plant and Its Uses

THE first and lasting impression of the National Cotton Show, at Memphis, Sept. 28 to Oct. 5, in conjunction with the Mid-South Fair, is that it is well worth, in interest and educational value, the space—more than half the Agricultural Building—it occupies.

The exhibit was prepared by United States Departments of Agriculture and Commerce and The Cotton-Textile Institute, in furtherance of the efforts of The New Uses for Cotton Committee, to develop new uses for cotton and to extend old ones.

The exhibit is comprehensive. The Agricultural Building houses a sketchy picture of cotton, from the seed to the many manufactured articles, tendered by The New Uses for Cotton Committee, for clothing, household uses and industrial purposes.

Plant Exhibits

There are displayed the many varieties of seed and hundreds of selected stalks offered in competition for prizes; many booths are devoted to cultural methods, space is devoted to insect enemies and methods of combating them; government methods of gathering and disseminating statistical information and marketing suggestions are outlined. Valuable bulletins on the many phases of production and distribution are free for the asking. In another building, a Style Show, featuring cotton fabrics, is an important adjunct.

The National Cotton Show is in charge of J. C. Gilbert, Washington, marketing specialist for the Department of Agriculture, and James B. Lockwood, Washington, specialist for the Department of Commerce. The show includes exhibits prepared by the Bureau of Agricultural Economics, Bureau of Home Economics, Bureau of Chemistry and Soils, Bureau of Foreign and Domestic Commerce and Bureau of Standards.

It is shown that in the last 10 years the proportion of cotton used for industrial purposes has increased from approximately 35 to 60%.

The automobile industry consumed in 1928, 288,000 bales of cotton in addition to 700,000 bales used in making tire fabrics.

American aircraft factories used 1,150 bales in 1928. The Graf Zeppelin has 20,000 square yards of cotton cloth in its outer envelope and 40,000 square yards for the 30 gas cells within the ship.

It is pointed out that 32 pounds of cotton goes into the construction of each automobile—the yield of about one-fifth of an acre.

Osnaburg for curtains, couch covers, bags and many other purposes in homemaking, especially where crafts-like effects are desired, is stressed. Particular attention is paid to farm uses for cotton goods, to the use of cotton bags and other containers made of cotton cloth and to cotton wrapping twine in the wholesale grocery trade and to cotton bags in the fertilizer, cement and other industries. Two bales of cotton, wrapped in cotton bagging, which were shipped to Germany and back, are on exhibit; both bales are in excellent condition.

Perhaps the outstanding exhibit is a group of booths showing uses for cotton in a 4-room home. There are in these four rooms 114 articles composed entirely or in part of cotton.

Interest in the National Cotton Show is keen.

Textile Forum Report

Published in Booklet by National Association of Cotton Manufacturers

THE National Association of Cotton Manufacturers has published in booklet form a complete stenographic report of the agents', managers' and superintendents' meeting at the Boston City Club, September 19, which was the first of the textile forums to be held under its auspices. The volume contains approximately 30,000 words and covers all of the transactions excepting identification of the speakers. A total of 74 mill men representing 53 different mills and 37 different corporations attended the forum and they will receive copies of the report free of cost while the volume is available to others at $2 per copy.

The first subject discussed was "What are good systems and methods to adopt to secure the most economical production in the carding department?" Some of the most important topics discussed under this heading were the following: One process picking; straight wire card clothing; continuous card stripper; hard pointed wire; long draft carding; correction of picker lap for moisture; the carding of cut rayon; labor specialization in the card room; single vs. two and three process drawing; chromium plated flyers.

Under the general heading of employe relations the following are some of the subjects discussed: Bonus systems; unemployment reserve funds; hiring and firing; physical examination; accident prevention; and employe representation.

"What are good systems and methods to adopt for most economical production in the spinning department? (a) determination of the number of spindles that can be operated by one spinner on frame spinning with and without cleaners." The following are some of the subjects that were discussed under this heading: What constitutes a spinner's job?; gang doffing; routed and timed piecing and creeling; efficient humidity control; effect of local conditions upon humidity control.

"What are good systems and methods to adopt to secure the most economical production in the weaving department? (a) How many looms per weaver with battery hand and why? How determined?" The various topics discussed under this heading were as follows: Slasher speed for different counts and moisture content; what constitutes a weaver's job?; standards of end breakage; patrol or cycle systems of tending looms with or without rest periods; the battery hand's job; pros and cons of labor extension or contraction in weave rooms; basing fixer's pay on percentage of weaver's earnings on his section; handling loom cleaning; determining actual value of different methods of lubrication; eliminating the usual extra Monday morning power load.

Program of N.A.C.M. Carder's Forum

Overseers of carding in New England mills and some of those in New York and Pennsylvania will discuss problems in connection with their work in the manufacture of cotton at the Textile Forum of the National Association of Cotton Manufacturers in the Boston City Club, Thursday, Oct. 10. This session will be the second of the Forum series and will be held solely for the carders.

Subjects which have been suggested for discussion include:

"Have any of the new cleaners any advantage over the Creighton Opener?

"Value of Humidification of Picker Rooms. (a) As it affects weight of the laps. (b) Combined with the different systems of handling picker dust; for example, the old type dust room and the new vacuum system.

"One-process Picking vs. two or three-process. (a) What are the advantages of one-process picking? (b) What effect does the kind of cotton, the yarn number, the type of beater blade, the beater settings and per cent waste have on one-process picking?

"What are good systems and methods to adopt to secure the most economic production in the card room?

"Value of hardened points on card clothing, licker-in, and doffer cylinders and flats.

"Value of non-stripping card clothing."

"Cleaning schedules. (a) Cleaning with compressed air vs. vacuum cleaning.

"How does the production and quality of a card clothed with 120 wire on the cylinder and 130 wire on the doffer and flats compare with cards clothed with 110 wire on the cylinder and 120 wire on the doffer and flats?

"What is the relative value of calf and sheep skins as top roll covering for speeders combined with shoddy or all-wool cloth?

"Is the use of a Belger twist tester for roving to be recommended?"

MEN'S LONDON STYLES

By G. M. Chappell

LONDON, ENGLAND

I have recently had an opportunity of seeing the newest materials from a noted West End tailor for men's lounge suits and plus-fours.

* * *

The former in most cases was of very closely woven material, and the designs were all small and neat. For instance, a small check design in black, Prussian blue and white; and also in black and white, was so woven that the white check, which was the largest, was no larger than the head of an ordinary pin. A dark gray pepper and salt design was woven diagonally with the merest sprinkling of salt, that is to say, of the whitey-gray shade.

* * *

Ordinary herringbone and check designs were diversified by silk stripes at intervals of one-half inch or so; and sometimes the silk stripes were varied by placing two within a quarter of an inch from each other and the third half an inch away. These silk stripes were generally white or gray and worked with a diagonal stitch in a line.

* * *

These herringbones were in fawn, with white silk stripe, greeny-gray with white silk stripe, and mauvey-blue with ditto.

* * *

A finer, softer woolen material in blue-gray had self and rose-colored stripes alternately at ⅛-inch intervals, the self stripe being of the woolen material and the rose stripe of artificial silk, which resembled a plain running machine stitch.

* * *

Plain herringbone and checks seemed all to be with smaller designs than formerly, with a few exceptions. Thus a coarsely woven herringbone with a speckled appearance of bright colors, as golden brown and bright blue, or a black and white foundation, had turquoise blue silk stripes alternately with black and white silk stripes between the herring-boning.

* * *

A very fine woolen material had a small raised design like a broken X in self color. This was shown in 3 shades, purpley-brown, tabac, and mole.

* * *

Materials in the plus-fours were of sumptuous wool, almost of blanket texture, and were for the most part in small herringbone and checks in rose-beige, fawn and light brown shades being the prevailing colors. Some had fine overchecks of blue and some were a multi-colored mixture with a white thread predominating. I only saw one dark one among them and that was a nigger brown and fawn herringbone mixture.

Yarns Spun at Oreland

American Woolen and Fleisher Pitching Duel

PHILADELPHIA.

LET'S give Ernest a hand. The worsted spinners outing was a great success largely because of the thorough preparation by Ernest Townson, chairman of the Field Day Committee and his 20-odd assistants. If anyone present at the Oreland outing—and there were 150 there—did not have the time of his life, there was something radically wrong with that individual.

The whole atmosphere of the event was indicative of the new and more optimistic feeling in the worsted yarn trade.

Credit for making the day so enjoyable goes to Ernest and the members of the various committees. The dinner was arranged by Billy Richardson who was the official representative of the Wool Institute present. Golf play for the "President's Cup" was supervised by Henry Legge, Gordon Bottomly, Howard Bacon, Stanley Stager, Louis Bagnall, J. B. Harrigan and Hetz Atherholt. More about the latter a little later.

Ernie Looking For Joe

The unusual entertainment throughout the afternoon and evening was the idea of Harry Wasson, who also was the much maligned umpire of the baseball game between Boston and Philadelphia, and Joe Duval. Joe had one of his prize customers at the outing as his guest but was given no peace by Ernest. It was "Joe, we are waiting for you to start the game downstairs"; "Joe, we are an hour behind time and can't do anything until you come"; "Those gentlemen will excuse you, etc." Now we know how Ernie accomplishes so much.

Adequate transportation to and from the railroad stations was supplied by Bob Lehman, Fred Krecker, Charlie McAlaine and Kid Murphy, the study in green. It was difficult to know when Murphy or Fritz Quittner was in the offing, each claiming his own single yarns had been used in his attractive green ensemble.

John J. Hosey and L. K. Keay saw that the base-ball game went along as scheduled and Morris Guerin, D. O'Brien, C. B. Rockwell, Edward Legge and Eugen L. Jalbert were members of the New England committee.

Atherholt Wins Golf Cup

Hetz Atherholt was easily the best golfer there that day, turning in a card of 74, handicap of 5 with a net of 69. The "President's Cup" will remain in Hetz's possession for the next year. The next low net was that of J. E. Pelt, whose card read, 100-28-72. Charlie McAlaine and C. E. Doan, the sole representative of the wool trade playing, both had nets of 73, although Doan's gross was the better, having 91 against 103 for Mac.

Other players who won golf prizes were: Jack Davis, C. A. Jensen, Sol Sussman, Jim Akeroyd, Joe Knipe, A. S. Harding, B. T. Britt, Fritz Quittner, A. M. Hickman, Geo. Barber, Gordon Bottomley, D. S. Seaman, Al Greenhill, A. H. Stursburg, Hollis Wolstenholme. Eggs Quittner was winner of the low gross prize with an 83; H. S. Hicks, cut forehead and all, won the second with an 84; J. Hulton, Jr., third with 87; H. Waterhouse, fourth with an 88; and Jack Rousseau, 88.

It is generally known that the American Woolen Co., and S. B. & B. W. Fleisher, Inc., compete for the outerwear yarn business of the nation but few thought this competition would become noticeable on such an occasion. It did though. When Fritz Quittner and Harry Wasson, umpires, announced batteries for the base-ball struggle, Neill MacCellan and John Hosey were the opposing pitchers and a hot battle naturally followed. It was necessary to play an extra inning before the winner was decided, final score being 9 to 7 in favor of Hosey's side.

The most spectacular event on the day's program was the archery contest. Out of a field of 20 Eugene Bonte, who makes his home in France, being connected with Jules Desurmont Worsted Co., was the winner, scoring two bulls eyes in succession while the rest of the, field, including such noted archers as McCellan, Gahm and Quinn, failed even to get on the target. Mr. Bonte was congratulated by Ernie Townson, in person, and that is glory enough.

The Philadelphia trade is optimistic, feeling they will be entirely recovered from the effects of the outing for the world series—that is, all except Sherwood Hicks.

Venice Now Second to Genoa in Italian Cotton Traffic

According to advices received in Texas cotton centers, Venice is now second to Genoa, in Italian cotton traffic. Venice is in a splendid position, as a cotton port, owing to its large connections with the industrial sections of Italy, and its convenient connections with other southern Continental ports. Up until the World War, Venice confined its activities to the Italian hinterland, but lately her position as a port of entry, has greatly improved. Last year a $4,500,000 concrete cotton warehouse, equipped with the most modern of cotton handling facilities was constructed on the Venice water front.

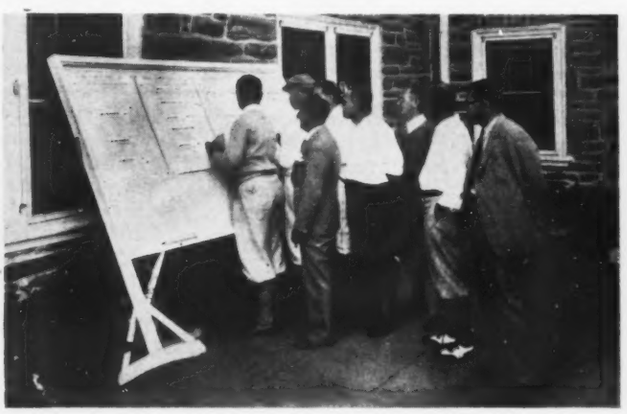
A GRAPHIC SURVEY OF THE WORSTED YARN INDUSTRY

Based on data compiled at the Manufacturers Country Club, Oreland, Pa., Sept. 25, 1929

A study in expression: Representatives of the machinery, goods, and yarn trades—mostly the latter. A statistician may be able to develop facial index numbers, indicating the condition in each of these trades. Left to right: Thos. H. Ball, Wm. F. Watkins, Eugene Bonte, Edward Cornall, Edward Jefferson.

Some can and some can't. Eugene Bonte, winner of the archery contest, on the side-lines trying not to look superior as George Gahm misses the target. Incidentally, Eugene is not carrying an arrow in his hat as a "spare." That is either a guy-wire running up to some telegraph pole—or a pipe-line running up to Reading.

The caddies lend an artistic effect; the winner in the contest will sit (or rather stand) as a model for a new version of "The Thinker." Also in this picture may be distinguished a distinguished foursome consisting of E. Jalbert, Bob Lehman, Jr., B. T. Britt and D. F. Greenawalt.



This is merely a gesture. It was generally conceded that Hetz Atherholt would retain the President's Cup for another year but the scorer felt it necessary to post Hetz's 69-net, in order to comply with U.S.G.A. regulations which govern the etiquette of such matters.

Of course there was a ball game. This picture purports to show John Hosey striking out—as all good pitchers (and tenors) should. John was captain of the winning team at the Worsted Spinners' Outing.

"It may be comedy for some folks but its tragedy for me." A wise-cracking gallery doing its stuff at the Worsted Yarn Spinners Outing at Oreland. The story of the day's work is on the opposite page.

HEAT INSULATION

in Textile Steam Plants

. . . *and Its Value*

By Charles L. Hubbard

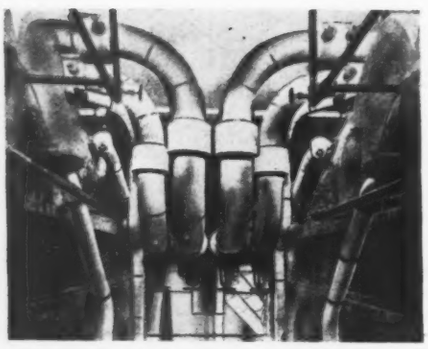


Fig. 2. A Typical Job of Sectional Pipe Covering

THE matter of insulation is an important one in any steam plant, and particularly in the steam plants of textile mills because of the frequent long runs of pipe for carrying steam to various points for process work and the heating of buildings, in addition to the usual high-pressure piping in the boiler and engine rooms. Besides the piping, there are other hot surfaces which require covering, such as storage tanks and heaters of various kinds, boiler drums, and smoke connections.

The primary object of insulation is to reduce the heat loss, while the comfort of the operatives is also an important item. Although the latter is a difficult matter to determine in dollars and cents, the first may be quite accurately computed for any given set of conditions, and will usually be found to be a much greater amount than is usually supposed.

Example of Saving

For example, a 6-in. uncovered pipe 100 ft. in length, surrounded by still air at an average temperature of 70° and filled with steam at 150 lb. pressure, will lose about 165,600 B.t.u. per hour, or 1,450,656,000 per year, if steam is kept on the pipe continuously. With a boiler efficiency of 75% and coal having a calorific value of 13,000 B.t.u. per pound, it will call for the burning of $1{,}450{,}656{,}000 \div (13{,}000 \times 0.75 \times 2{,}000) = 80$ tons (nearly).

By using a good grade of covering, having an efficiency of 93%, this loss in fuel could be reduced to $80 \times 0.07 = 5.6$ tons. In the case of larger lines of piping, carrying higher pressures and temperatures, the saving would be proportionally greater.

Table I is interesting as showing the length of time required, in months, to pay for the cost of covering in fuel saved. This is computed for a temperature difference of 500° between the steam and surrounding air, for 85% magnesia, of the thicknesses indicated, with fuel costs ranging from $0.15 to $0.35 per million B.t.u.

The saving is given in terms of dollars per lineal foot of pipe per year. The cost of covering includes the labor of application, and is given in terms of "list" price per lineal foot, which corresponds very closely to the actual cost of this type of covering.

Insulation on boiler drums, heaters, hot-water storage tanks, etc., is for the

TABLE I

Pipe Temperature °F.....	500°				
Fuel Cost—per million B. T. U.....	$0.15	$0.20	$0.25	$0.30	$0.35
2 in. Pipe—Cost of covering on pipe, "List" net. Material.....	2 in. th. Mg.				
Months required....	8.50	6.39	5.10	4.24	3.63
Saving per yr., ...	1.28	1.75	2.22	2.70	3.17
Cost of covering on pipe, "List" less 20%					
Months Required...	6.80	5.10	4.08	3.47	2.90
Saving per yr., ...	1.31	1.78	2.25	2.73	3.20
4 in. Pipe—Cost of covering on pipe "List" net. Material.....	D. S. Mg.				
Months Required...	6.5	4.8	3.9	3.2	2.8
Saving per yr., ...	2.42	3.29	4.15	5.02	5.89
Cost of covering on pipe, "List" less 20%					
Months Required...	5.2	3.9	3.1	2.6	2.2
Saving per yr., ...	2.47	3.34	4.20	5.07	5.94
6 in. Pipe—Cost of covering on pipe, "List" net. Material.....	3 in. th. Mg.				
Months Required...	8.5	6.3	5.1	4.2	3.5
Saving per yr., ...	3.48	4.76	6.05	7.32	8.60
Cost of covering on pipe, "List" less 20%					
Months Required...	6.6	5.1	4.0	3.4	2.9
Saving per yr., ...	3.55	4.83	6.12	7.39	8.69
8 in. Pipe—Cost of covering on pipe, "List" net. Material.....	3 in. th. Mg.				
Months Required...	7.6	5.7	4.6	3.8	3.3
Saving per yr., ...	4.55	6.21	7.86	9.52	11.17
Cost of covering on pipe, "List" less 20%					
Months Required...	6.1	4.6	3.7	3.8	2.6
Saving per yr., ...	4.63	6.29	7.94	9.60	11.25
10 in. Pipe—Cost of covering on pipe, "List" net. Material.....	3 in. th. Mg.				
Months Required...	7.1	5.4	4.2	3.5	3.0
Saving per yr., ...	5.73	7.79	9.85	11.93	13.99
Cost of covering on pipe, "List" less 20%					
Months Required...	5.6	4.2	3.4	2.8	2.4
Saving per yr., ...	5.82	7.88	9.94	12.02	14.08
12 in. Pipe—Cost of covering on pipe, "List" net. Material.....	3½ in. th. Mg.				
Months Required...	7.8	5.9	4.7	3.9	3.4
Saving per yr., ...	6.71	9.15	11.59	14.06	15.49
Cost of covering on pipe, "List" less 20%					
Months Required...	6.3	4.7	3.8	3.1	2.7
Saving per yr., ...	6.84	9.28	11.72	14.19	15.62
14 in. Pipe—Cost of covering on pipe, "List" net. Material.....	3½ in. th. Mg.				
Months Required...	8.2	6.1	4.9	4.1	3.5
Saving per yr., ...	7.29	9.97	12.64	15.29	17.99
Cost of covering on pipe, "List" less 20%					
Months Required...	6.5	4.9	3.9	3.3	2.8
Saving per yr., ...	7.43	10.11	12.78	15.43	18.13
16 in. Pipe—Cost of covering on pipe, "List" net. Material.....	3½ in. th. Mg.				
Months Required...	8.8	6.6	5.3	4.4	3.8
Saving per yr., ...	7.52	10.30	13.10	15.85	19.60
Cost of covering on pipe, "List" less 20%					
Months Required...	7.0	5.3	4.2	3.5	3.0
Saving per yr., ...	7.69	10.47	13.27	16.02	19.77

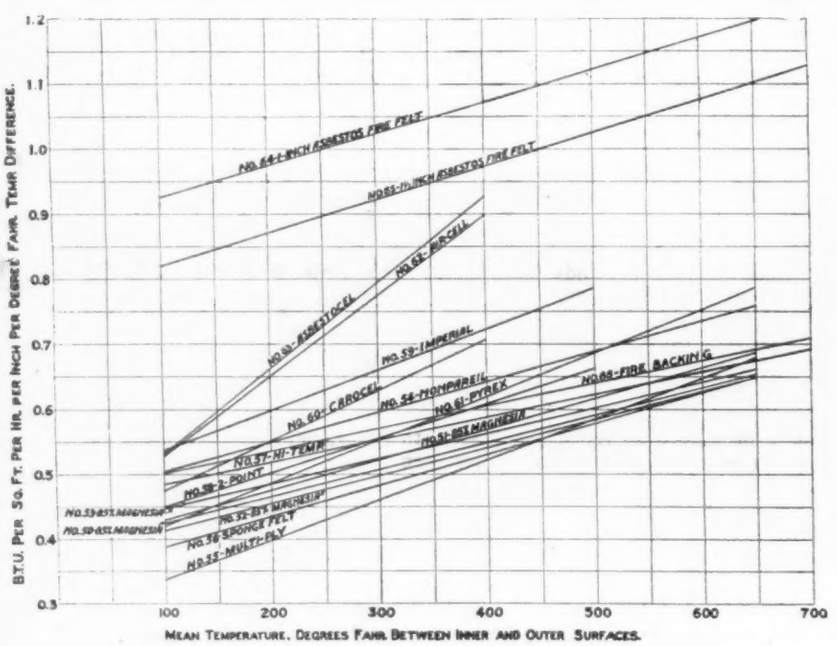


Fig. 1. Thermal Conductivity of Different Insulating Materials

same purpose as that on steam piping, while smoke connections are covered principally to reduce the temperature of the boiler room, although the insulation also maintains the temperature of the gases passing to the chimney, and so tends to strengthen the draft in the chimney.

Computing Heat Loss

The heat loss from a bare steam pipe varies with the size, the difference in temperature between the steam and the surrounding air, and the velocity of the air over the pipe. Elaborate tests have been made on different sizes of pipe for the temperature range employed in practical work. For very accurate results the heat losses may be taken from curves plotted for each size of pipe, but for all ordinary work, values may be interpolated in Table II, which gives the heat loss from bare horizontal iron surfaces in B.t.u. per lineal foot of pipe, and per square foot of flat or large radius surfaces per hour, and will be found useful in making estimates of the probable saving by the use of insulation.

Example: What will be the heat loss per lineal foot, per hour, from an uncovered 10-in. pipe carrying steam at 180 lb. pressure and surrounded with air at 75°?

The temperature difference in this case is 380 — 75 = 305°. Table II gives the heat loss for a 10-in. pipe with 300° temperature difference as 2,639 B.t.u., which is sufficiently close for all ordinary work. If there were 45° superheat in the above case, the temperature difference would be (380 + 45) — 75 = 350°, and the heat loss would be the mean between that for 300° and 400°, or (2,369 + 4,331) ÷ 2 = 3,350 B.t.u. In like manner, the loss for other temperature differences may be found by making one or more averages which will give a figure sufficiently close to the actual for all practical purposes.

When Air Moves

The figures given in Table II, and commonly used for ordinary work, are based on still air, but these are much increased by air circulation. For example, taking the heat loss for a temperature difference of 300° as one for a unit of surface per unit of time, the effect of increasing the air velocity will be approximately as follows:

Air Velocity Ft. per Min.	Relative Heat Loss
0	1.00
400	1.55
800	1.75
1,200	2.10
1,600	2.40

While the movement of the air over bare pipes is an important factor, as shown above, the effect upon well-insulated surfaces is comparatively small. This is due to the fact that air flowing over the surface of the insulation can only increase the rate of heat transfer from the surface to the air, and cannot change the internal resistance to heat flow produced by the insulation itself. Ordinarily, the maximum increase in heat loss due to air velocity ranges from about 30% for 1 in. of insulation to 10% for 3 in., provided it is in good condition without cracks through which the air may reach the bare pipe.

TABLE II

	Temperature Difference °F Between Hot Surface and Surrounding Air							
Pipe Size, Inches	100°	200°	300°	400°	500°	600°	700°	800°
1	86.0	206.4	371.5	597.2	887.5	1,249.	1,681.	2,188.
1¼	106.6	255.6	462.0	744.7	1,107.	1,561.	2,104.	2,742.
1½	120.0	288.8	522.9	842.6	1,252.	1,769.	2,391.	3,119.
2	146.2	354.5	643.8	1,035.	1,549.	2,179.	2,948.	3,851.
2½	172.4	418.6	761.3	1,232.	1,849.	2,611.	3,536.	4,626.
3	206.3	500.7	910.6	1,478.	2,223.	3,142.	4,275.	5,597.
3½	232.4	563.3	1,027.	1,667.	2,513.	3,562.	4,852.	6,357.
4	258.2	627.2	1,146.	1,863.	2,812.	3,990.	5,430.	7,121.
4½	284.3	689.0	1,265.	2,054.	3,105.	4,417.	5,980.	7,891.
5	313.5	761.2	1,400.	2,274.	3,434.	4,899.	6,654.	8,736.
6	369.8	899.2	1,656.	2,701.	4,071.	5,802.	7,887.	10,360.
7	422.0	1,028.	1,896.	3,096.	4,670.	6,660.	9,058.	11,900.
8	472.8	1,158.	2,131.	3,493.	5,270.	7,505.	10,230.	13,450.
9	525.2	1,288.	2,371.	3,888.	5,870.	8,347.	11,400.	14,990.
10	583.1	1,433.	2,639.	4,331.	6,542.	9,306.	12,710.	16,710.
12	685.5	1,685.	3,110.	5,096.	7,707.	11,000.	15,000.	19,740.
14	747.2	1,832.	3,382.	5,553.	8,406.	12,000.	16,380.	21,570.
16	849.4	2,075.	3,841.	6,309.	9,560.	13,660.	18,660.	24,570.
18	952.8	2,330.	4,316.	7,076.	10,731.	15,340.	20,970.	27,620.
Flat	192.0	470.	870.	1,424.	2,160.	3,090.	4,228.	5,560.
	100°	200°	300°	400°	500°	600°	700°	800°

Effect of Insulation

The effect of insulating pipes and other steam-heated surfaces is to cut the heat loss to an amount varying from 2 to about 20%, as compared with that from the bare pipe, depending upon the material and thickness of the covering, the pipe size, and the temperature difference.

The ratio of the saving by insulating pipe, to the loss from the bare surface, other conditions being the same, is called the "efficiency." For example, if the heat loss from an 8-in. bare pipe is 2,131 B.t.u. per lineal foot per hour for a temperature difference of 300° and 180 B.t.u. when covered, the efficiency of the insulation is

$$\frac{2{,}131 - 180}{2{,}131} = 0.915 \text{ or } 91.5\%$$

This relation is of especial importance in determining the probable saving which may be obtained by insulating a system of piping, and may also be used in comparing the effectiveness of different coverings under similar conditions.

The true measure of comparison between different kinds of insulating material is "conductivity," as this eliminates all variables such as thickness, curvature, and nature of the outer surface. Thermal conductivity, as used in this connection, is the heat transmitted in B.t.u. per hour, through 1 sq.ft. of material, 1 in. in thickness, with a temperature difference of 1° between the two surfaces.

The conductivities of various types of heat insulation have been very carefully determined by experiment, and a considerable number are included on the chart shown in Fig. 1. It will be noted in this case that the temperature taken is the average or mean between the inner and outer surfaces of the covering, these temperatures being accurately measured in the tests.

Insulating Material

The materials most commonly used for insulating steam-heated surfaces include asbestos, magnesium carbonate, diatomaceous earth, mineral wool, and granulated cork where the temperature is not too high. For covering ice or chilled water, brine, and ammonia piping, granulated cork, hair, or wool-felt coverings are the materials usually employed.

The requirements for a satisfactory insulating material are that it shall be (1) a good non-conductor, (2) easily molded and applied, (3) not liable to deterioration or attractive to vermin, (4) fireproof, (5) light in weight, (6) capable of standing a considerable amount of abuse, and not affected by water and steam.

As a matter of fact, all of these characteristics are not found in any one material, so that various combinations are usually employed in making up the different commercial coverings on the market.

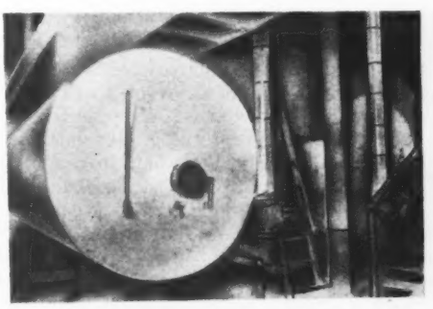


Fig. 3. Block and Plastic Covering for Tanks

Asbestos is a peculiar species of the hornblende family of minerals, and is composed chiefly of silica, magnesia, and a small quantity of alumina, iron oxide, and water. It owes its insulating

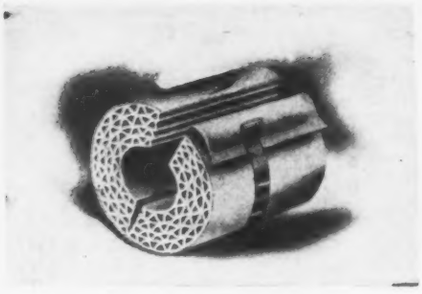


Fig. 4. Typical Air-Cell Covering

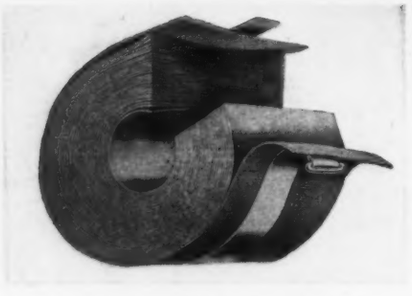


Fig. 5. Asbestos Covering Made of Thin Layers of Felt

qualities to the minute air cells which are formed by the fibers, and to openings which are artificially produced in different ways.

In order to mold asbestos into the required forms, it is necessary to use a binder of some heat-resisting material, which, in adding the necessary strength, reduces its insulating properties somewhat and may also limit the temperature which it will safely withstand. In general, asbestos felt coverings may be successfully employed for temperatures up to 500°.

The magnesia used for insulating purposes is the artificially prepared basic carbonate of magnesia, a compound of the carbonate with the hydroxide, commonly known to the trade as "block-magnesia." This material also requires about 15% of a suitable binder, so that standard insulation of this kind is designated as 85% magnesia. When carbonate of magnesia is heated to a temperature of 500°, calcination begins to take place, and this is accompanied by a loss of natural cohesion between the crystals. On this account covering of this material should be limited to a maximum temperature of 550° to 600°. When it is desired to use magnesia for higher temperatures, it is necessary to place a layer of some other high-temperature material next to the pipe.

Other Materials

Diatomaceous or fossil earth is a marine deposit composed entirely of minute shells of aquatic organisms called diatoms. They consist of practically pure silica, the organic matter having been dissolved, and the small spaces left by this action form a multitude of dead-air pockets which produce the insulating effect. This substance has three important properties: non-conductivity of heat, insolubility in water, and stability at high temperatures, which are essential in a covering.

In order that the material will have the required strength and can be properly molded, it is combined with a certain amount of long-fibered asbestos, which acts as a binder. Insulation of this character will withstand temperatures considerably in excess of 1,000° without damage, and is therefore adapted to all pressures which are likely to be used.

Mineral or rock wool is made from certain forms of rock, which are first melted in special furnaces and then blown into tiny fibers by means of high-pressure jets. It is a highly efficient form of insulation, as the entrapped air cells make up about 90% of its bulk. It is not affected by dampness and may be used for temperatures up to 1,200°.

A similar material, known as "slag wool," is made from the refuse of blast furnaces. While this has good insulating qualities, it contains impurities which tend to cause corrosion and deterioration of metal surfaces, and should not therefore be placed in direct contact with them. The best grades of mineral wool made from the natural rock are free from this objection. Granulated cork is extensively used in connection with refrigerating plants on account of its resistance to moisture.

Hair and wool felts have high insulating qualities, but are subject to injury by vermin and are not adapted to the high temperatures found in steam work. Material of this kind is confined principally to the insulation of water and brine pipes at low temperatures, being suitably protected against damage from external sources.

Types of Insulation

The materials above described are made up in different combinations and sold under various trade names, some of which are shown in the accompanying illustrations. These have been chosen to illustrate different types and not because of any superiority over others which have not been included.

Insulation is made in a variety of forms for different purposes; sectional, molded for pipes and fittings (Fig. 2); sheet and block for tanks, heaters, etc. (Fig. 3); and all flat surfaces or those of large radii. Plastic covering is also available for both irregular and extended surfaces, and is sometimes used in place of both the molded and block covering or in combination with them. Vitrified blocks, both flat and curved, are available for use on smoke connections and stacks; and sponge or dry filling, for packing around pipes in underground conduits. In selecting a covering, the character of the service must always be considered, such as temperature difference, exposure to dampness or weather, amount of vibration, and liability to knocks and abrasions. The importance of these various qualifications will vary in different cases and each must be given due weight, as well as the cost, in making a selection.

A typical air-cell covering of corrugated asbestos structure is shown in Fig. 4. These coverings are made in different forms and are adapted to low and medium steam pressures, where the temperature of the pipe runs from 100 to 300°.

Another asbestos covering is shown in Fig. 5. This is made of layers of thin felt, composed of asbestos fiber and particles of finely ground spongy material forming a cellular structure, and built up in laminated form. It is adapted to high-pressure work and temperatures up to 600 or 700°. It will also dry out after being wet without reduction in efficiency and will withstand a considerable amount of vibration and hard wear.

In addition to those shown, there are a number of other asbestos coverings sold under different trade names, varying in cost and physical characteristics.

Other Types

The 85% magnesia covering, shown in Fig. 6, is widely used, and placed upon the market by a number of different manufacturers. It is light, durable, and highly efficient within its temperature range, which should be limited to about 550°, or 600° at the most.

Diatomaceous earth, mixed with long-fibered asbestos, is made up in molded forms similar to those already shown, and is adapted to a wide range of conditions, due to its resistance to high temperatures and its insolubility in water, alkalies, and most acids. It is

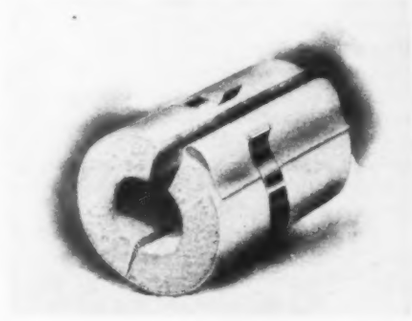


Fig. 6. 85% Magnesia Covering

Fig. 7. One Form of Rock-Wool Covering

uninjured by moisture and may be submerged in water for long periods without damage after drying out.

One method of making up sectional covering from rock wool is shown in Fig. 7. It is molded to form by means of embedded wires or netting and provided with an outer covering either of metal or some form of felt or asbestos paper, depending upon the required service. This type of insulation is furnished by different makers under various trade names.

When magnesia is to be used for temperatures exceeding 550° to 600°, a layer of some material having a higher resistance is placed next to the pipe, with the magnesia outside, as shown in Fig. 8. Various combinations of this kind are available which give a high efficiency, combined with durability in connection with high-temperature work.

As previously stated, all of the various insulating materials are made in blocks and sheets for application to flat and large-radius surfaces. The slabs or blocks are wired in place, the joints filled with cement, and usually the whole surface is given a hard, smooth finish with a coating of special cement.

In the case of large pipe lines, above 10 or 12 in., block covering or lagging is used, finished with an outer covering similar to that of the regular sectional insulation on the smaller piping.

Valves, fittings, etc., are protected both with molded, block, and plastic covering. The most common arrangement is to use molded removable coverings for such flanges or fittings as are liable to be disturbed, and employ plastic or block insulation on the others, according to size. Work of this kind is finished both in hard cement and canvas.

Smoke connections, chimney flues, etc., subject to high temperatures, require a covering especially designed for this purpose, which commonly consists of some form of asbestos cell material which has been subjected to a vitrifying process for giving it strength, hardness, and heat-resisting qualities. Material of this kind is shown in Fig. 9; it is made both flat and curved to fit pipes and flues of various sizes.

Outside Lines

The modern textile mill makes use of a central power plant, with pipe lines carried to the various buildings where steam is required for heating and process work. This arrangement makes the matter of insulation an important factor in the operating economy of the boiler plant, as portions of these distributing lines must be run outside, either overhead or underground. Both of these arrangements are used, depending upon local conditions, such as appearance, cost, and obstructions of various kinds, both above and below the surface.

Fig. 10. Combined Insulation and Conduit for Outside Work

Fig. 11. Split-Tile Conduit with Dry Filling

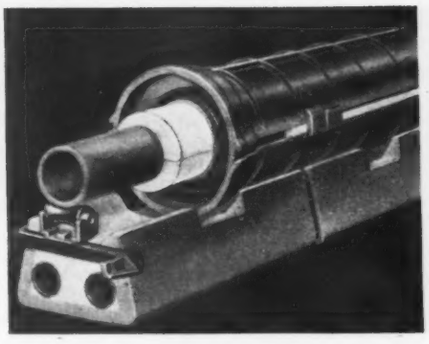


Fig. 12. Cast-Iron Conduit and Sectional Covering

Overhead lines are usually insulated with a good grade of sectional covering, and then provided with a weather-proof jacket or casing, of which there are several available, designed for this particular purpose. Some of these consist of shells of a tough fibrous material, in 3-ft. lengths, split along one or both sides according to the size of pipe, and fastened in place with staples which join the longitudinal seams. The transverse joints are covered with a short section of the same material. In other cases the covering is protected by a couple of layers of sheet roofing, these being overlapped so as to break joints, and the seams securely laced and so arranged as to come on the side or under-portion of the pipe in order to shed water.

The conduit shown in Fig. 10 is adapted to either overhead or underground locations. It is made of wooden staves, as indicated, waterproofed on the outside, and serves both as insulation and conduit. When used for high-pressure steam it is lined with tin.

Underground Conduits

When run underground, the pipe should be placed in some form of waterproof conduit which will not only protect the insulation but also withstand the earth load and take care of the expansion and contraction of the piping without undue stress on the couplings and without affecting the insulation. There are many types of conduits for underground piping, a number of which were shown by the writer in the Dec. 3, 1927, issue of TEXTILE WORLD. Certain forms combine the insulation and conduit in a single section, this being composed of asbestos cell with an outer waterproof covering in some cases, while in others a built-up or bored wooden conduit is used, as in Fig. 10.

The split tile conduit, of the general form shown in Fig. 11, is quite extensively used for this purpose, the insulation being packed around the pipes as indicated, or sectional covering may be employed as illustrated in Fig. 12. In some cases the lower half of the conduit is built of poured concrete, or blocks of the same material, with a half tile for a covering, while in others the entire construction is of concrete. The advantage of the tile arrangement is that the pipe may be more easily reached in case of repairs.

The conduit shown in Fig. 12 is of cast-iron, and is designed for locations where the pipe must pass under railroad tracks or streets subject to heavy traffic, where there would be much vibration tending to injure the covering.

There is very little difference in the annual heat loss from pipe carried underground and overhead, all other things being equal. Underground piping is exposed to a more uniform temperature throughout the year and is not exposed to the action of winds, but when properly insulated, these factors are not important. It is, therefore, safe to assume that the actual efficiency will be much the same in either case, and the location will not be greatly influenced by it.

Efficiency by Grades

The general definition of the efficiency of pipe covering has already been given, and we will now include the actual efficiencies of a few different grades of insulation which will be found useful in approximating the saving in heat to be obtained by the use of insulation in any given case. Efficiency is not the proper basis for comparing two different coverings unless all conditions are the same, including temperature difference, size of pipe, thickness of insulation, and cost. The following efficiencies are not for the purpose of comparing different makes of covering, but to show about what saving in heat can be obtained with various types under stated conditions.

Table III gives average efficiencies for 85% magnesia covering in thicknesses of 1½ and 2½ in. for temperature differences between the steam pipe and

(Continued on page 82)

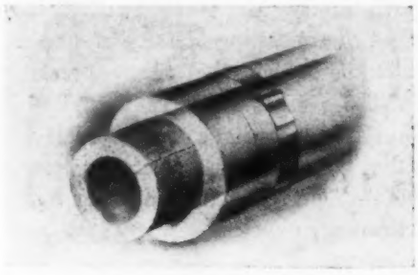


Fig. 8. Magnesia Covering, with a Special Core, for High Temperatures

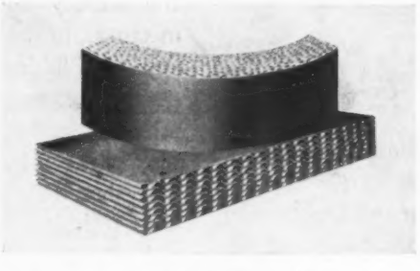


Fig. 9. Vitrified-Block Covering for Smoke Connections

With · the · Editors · This · Week

A Real Crisis in the South

SOUTHERN industry, as a whole, faces today a more serious situation than any which has confronted it since the start of labor disturbances in textile mills in that section last March.

A condition of hysteria exists, and under that condition anything may happen—that is, anything except an approach to the solution of the problems which brought about the unrest.

The riot at Marion, N. C., during which three strikers were killed and twenty injured—some possibly fatally, is a tragic example of what may be expected.

The question of whether or not the mill involved violated its previous agreement as charged by the Union —and even the question as to who fired the first shot, are subordinate to the broader question of where the present situation is leading.

This is not a local Marion problem—nor a local Gastonia problem. It involves all southern industry and, indirectly, all American industry.

It is admittedly difficult for any one community or for any one group to visualize its relationship to the South as a whole or to the country as a whole when an immediate and local crisis confronts that community or that group. Nevertheless such orientation is absolutely essential if a bitter and destructive class warfare is to be avoided.

Manufacturers, collectively and individually, must recognize the explosive atmosphere now prevailing and must guard against the slightest act which might prove to be a spark. Union leaders—in the interests of the great mass of workers whom they aim to represent—must realize that no good can come out of chaos. Officers of the law must exercise the utmost restraint even if at times it means failure to enforce the letter of the law in its strictest sense.

Unless all these groups can recognize their public responsibility, there will ensue a long drawn out struggle, the scars of which will not be removed for many years. During that time, employers, employes, and citizens in general will suffer—and will achieve nothing, but lose much, through that suffering.

Senate vs. United States

THE Democratic-Progressive coalitionists in the Senate have had their way—temporarily at least, and possibly permanently. The Simmons amendment, passed Wednesday by a vote of 47 to 42, takes from the President all power to change tariff rates independently of Congressional action. It means that the Tariff Commission's recommendations would be submitted to Congress and not to the President.

Such a course has been described by President Hoover as "only a destruction of the principle of the flexible provision." Unless the Senate reverses itself later, it would seem that the President has only one path of action open to him, namely to veto the tariff bill as a whole and to trust to the efficacy of the flexible provisions of the tariff act now in force.

There is still time, however, to put an end to this political juggling. Every attempt should be made by every individual concerned in the further progress of the country, to convince members of the Democratic-Progressive coalition that, in withdrawing a prop under the tariff structure as reframed seven years ago, they are acting against the interests of every class and of the nation as a whole.

Importance of the "Who" and the "Where"

IT IS interesting, perhaps, to hear that some unidentified mill is having great success with some process or some method of handling help that has been tried elsewhere and proved a partial or complete failure. But if it some identified and successful mill or agent who has done these things then his reputation renders his accomplishments more than interesting. It is the difference that exists between gossip and fact.

The National Association of Cotton Manufacturers has just published a report of the discussions at the meeting of cotton mill agents, managers and superintendents, held in Boston, September 19, this report apparently being complete with the exception of indentification of speakers. Because of this lack and because many of the problems discussed are contentious, the reported statements of "member," although they may be interesting, are not always convincing to those who were not present and cannot know the reputation of the speaker or the mill he represents.

In justice to the association it must be stated that the secrecy with which they have surrounded these meetings, to the extent of concealing identity of speakers and prohibiting attendance of the trade press, is designed experimentally to stimulate freer discussion by mill men, and to win the cooperation of mill officials who may either believe that they have manufacturing secrets that should be concealed, or feel sensitive about having their technical shortcomings exposed.

Eventually the association will find that the wider the publicity that can be given to these forum discussions, when conducted under reasonable rules of

procedure, the greater the benefit to participants and to the industry as a whole. That has been the experience of the Southern Textile Association which has been conducting such open discussions for many years, and of technical organizations in other industries.

In the meantime those mill men who would know the who and where of matters discussed at National Association forums, and thus be in a position to judge for themselves of the value of experiences and results recorded, must attend the meetings and take part in them. The "member" of the published report then becomes a certain mill man and a certain mill whose reputation may or may not tend to demonstrate the soundness of the views expressed.

Aerial Roof Advertising

WHEN, two weeks running, TEXTILE WORLD publishes items telling of important industrial corporations that have utilized the roofs of their plants for advertising purposes, it becomes evident that this new method of promotion is making rapid headway. The Standard Oil Co. of Ohio has displayed, with fabric markers, the name of the city on the roof of each of the company's plants in 272 communities. The du Pont Rayon Co., has painted the name, Waynesboro, on the roof of its plant in that Virginia city. The immediate service of these signs is to guide aviators who may be soaring past, and for the corporations concerned it means additional prestige.

Viewing the proposition broadly, it is apparent that the roof of the industrial plant is coming to have a new value and significance. Already, a few textile plants have been pioneers in this direction and have painted the names of the community on their roofs. It is stimulating to the imagination to ponder just what the future holds in this direction. With the swift development of flying, and the ever-increasing number of persons using this means of transportation, it is clear that aerial advertising will have a direct commodity value eventually. The first step has been taken, in using the roof as a guide to the pilot. Obviously, the next thought would be to tie up the name of the company, or its products, with that of the city itself. Then, the question arises, why not address the passengers in the plane? If the pilot will look down, to locate his bearings, it stands to reason the business man who travels by air will do likewise; thus a growing public presents itself to the mind's eye, as a sales market. The development of aerial advertising suggests that before long, the sky riders who may look downward will read of the particular advantages of Blank's knit underwear, or Brown's cotton fabrics.

These are glimpses into the future, and at first blush, they may seem strange. However, they are the normal follow-up of present trends. It is inconceivable that the textile industry will fail to keep step with the times in this regard. A sales message on the roof catches the eye of the air traveler, and is bound to have effect. Every new convert to air travel means a new potential customer. This method of advertising will increase in importance as aviation itself grows; and the wideawake mill-owner will be the man who takes the lead in selling his product to this public.

The International Silk Conference

WITH the opening of the Second International Technical Raw Silk Conference ten days away, New York City has become the Mecca of silk industrialists from all parts of the world. If the hopes of the leaders are fulfilled—and there is good reason to believe they may be—this assembly will be one of the most valuable and constructive in the history of the silk industry. It is the first conference of the kind ever to be held on American soil; and it has a particular significance at this time, in view of the steady increase in domestic consumption of raw silk during recent years. These gatherings are in line to become an annual event, and it would be well if they did so, as they have an importance far-reaching in its scope. The First International Raw Silk Conference, held in Yokohama last year, achieved much in the way of bringing silk producers and silk consumers to a closer mutual understanding. That event, however, being the first of its kind, left much to be desired; it could not, in the nature of things, be much more than a pioneer undertaking.

The second conference, which opens Oct. 15 in New York, should mark a decisive step forward.

The program for this gathering is inclusive; it covers the whole range of technical aspects, testing, sampling, evenness measurement, cleanness, neatness, cohesion, etc. The committee in charge has wisely set one day apart for consideration of the requirements of the weaving and knitting industries; defects in raw silk, and their effect respectively upon the woven or the knit fabric will be considered. Minute analysis of this question should aid the raw silk producers in understanding the problems confronting the silk manufacturing industry in this country.

Conventions are constructive only insofar as their spirit is constructive, and what the delegates take away from the silk meeting will depend mostly upon what they bring to it. The meeting could be, and should be, far more important than the discussion of the specific problems listed on the program. Further study of standardization is important; review of the newest methods of testing is important; but what is most important of all is that a closer feeling of cooperative helpfulness should be created between the source market and the consuming market. The spirit of the delegates, as revealed in the comments of those now assembling speaks well for the possibilities of the meeting as a constructive session.

Fashion Emphasizes Shantungs

Rough Silks Due for Big Season, Is Belief of Weavers

Many manufacturers endorse the theory that it generally takes two years to "make" an important mode. A case in point is the vogue for rough silks which enjoyed such a mushroom growth last season that the demand far exceeded the supply. As a result, just enough silk shantungs were shown to establish their prestige and win feminine favor, without satiating the public taste. The rough silks have now had time to prove their claims to sturdy durability, and washability—two points which have definite appeal to the active sportswoman.

According to a statement just issued by the Spun Silk Research Committee, the American manufacturers most closely in touch with style trends abroad are preparing for a rough silk season which will exceed last year's demands. One of the first groups of sport fabrics to appear is presented by the General Silk Corporation. They feature several qualities of shantung, in an unusually wide variety of new spring shades, and covering the entire price range. These rough silks are 100% pure spun silk, and are therefore completely washable, colorfast and non-shrinkable.

Pajamas at Antibes

Using the smart smaller Riviera resorts as a fashion barometer, recent reports indicate that these rough silks not only continue to hold their own, but many new and charming treatments are introduced. Miss Kathleen Howard, fashion editor of Harper's Bazaar, reports that shantung pajama costumes are an important vogue at Antibes, particularly in white and natural color, with accents of dark blue or black. White, is of course, always attractive under bright sunlight, and in addition is flattering to the sun-tanned skin. Next in importance are yellow, chartreuse, turquoise, and other high shades. The printed shantung pajama costume such as Cheney Brothers featured in their recent Palm Beach opening, emphasize modernistic motifs in every brilliant coloring, frequently exotic in character. These are often accompanied by three-quarter coats of the new sleeveless type, which may also be worn with plain colored pajamas to match the predominant color note of the print.

Masculine Modes

In contrast to these rather picturesque beach costumes, many of the smartest women at Eden Rock, and the Lido, affect masculine modes with shorts or tailored trousers accompanied by sleeveless pullovers or polo shirts. Colored belts and brilliant silk shantungs or crepe scarfs add accents of color to these boyish costumes. The shantung sport frock, by way of contrast is more feminine in feeling, reflecting discreetly the general trend of the mode. The slightly longer skirt, with circular fullness, the sleeveless mode, and the accompanying jacket, are recurrent themes. It is interesting to note that in both the sport frock and the pajama costume, silk shantungs of the finest quality are chosen, for the picturesque life of the Riviera resorts demands fabrics which are smart in the casual manner, and in addition are sturdy, washable, and colorfast—qualities definitely characteristic of silk shantungs.

Bemberg Corp. Holds Style Show

Fashion Rightness of Fabrics Stressed at New York Display

THE important position occupied by synthetic yarn fabrics in 1929-30 styles, was strikingly illustrated at a fashion show staged by the American Bemberg Corp., at the Theatre Moderne, atop the Chanin Building, New York, on Tuesday evening. The show was opened by Ernest C. Morse, of the Bemberg corporation, who made a brief address, explaining the purposes of the event, and the chief characteristics of Bemberg yarn in relation to ready-to-wear garments. The display comprised a showing on live models of six different groups of garments, all made partly or completely of Bemberg. In all, 32 garments were displayed, these covering the various fields of lingerie, sport, daytime and afternoon, children's apparel and evening gowns.

The adaptability of Bemberg to current style requirements was the chief note of the event, and this theme also was stressed by Mrs. Louise Hustin, director of the company's educational Bureau, who explained each model as it was shown. Mrs. Hustin arranged the display. The garments were styled by the leading French couteriers, she explained, and were brought over a few weeks ago. She said she visited 23 Paris showings in order to get the authentic styles for the coming season. The appeal of the display, therefore, was mostly to stylists and manufacturers who make a specialty of high-quality production. One feature of the daytime group of Bemberg dresses was the print fabrics; Mrs. Hustin said the fabric was printed by a new process which formerly had been applied only to silks.

The outstanding point of the display, however, was the formal dress group, as these gowns showed very strikingly the de luxe possibilities of synthetic yarn. The gowns shown were copies, adaptations and original models, and the designers represented included Lanvin, Jenny, Louise Selby, Vionnet, Patou, Worth, Callot, and Stein & Blaine. The fabrics in this group were red taffeta, chiffon crepe, crepe satin, moire and tulle. The gowns presented a rich and decidedly quality appearance. They all showed the new trend toward longer skirts; several of the numbers had trains. One feature was an ermine wrap, lined with satin made from Bemberg. All the hosiery worn by the models was made of Bemberg.

The event was originally planned for one showing, but so many requests for seats were received that two showings were given.

Textile Club Greets New President

Some 200 members of the Southern New England Textile Club gathered at the Pomham Club, Riverside, R. I., last Saturday to greet President W. S. Pepperell, who presided at this first meeting since his election last June. It was the 139th meeting of the club and was devoted entirely to social intercourse and to the luncheon and dinner for which the Pomham Club is famous. A cordial invitation was extended to members to attend the textile show of the Androscoggin Valley Mill Men's Association to be held in the Lewiston (Me.) Armory, Oct. 7 to 12.

Philadelphia Textile Mfgrs.' Annual Meeting Scheduled

Philadelphia Textile Manufacturers' Association will hold their annual meeting and election of officers and directors Oct. 24 at the Manufacturers' Club, according to an announcement made by C. Marlin Bell, secretary. There will be two speakers at the dinner, Charles J. Webb, head of the organization, the second speaker will be Lieut. Jack Robinson, United States naval observer, who was aboard the Graf Zeppelin on its round-the-world flight.

Tubize to Concentrate Offices

The Tubize Artificial Silk Co. of America announces that plans are nearing completion for the removal of the executive office in Philadelphia to New York. The company will enlarge its New York office at 2 Park Avenue, to meet the requirements of the change. The space occupied at the Park Avenue building will be doubled, it is stated, to accommodate the offices of the secretary and treasurer, formerly located at 1207 Stephen Girard Building, Philadelphia.

Better Lighting

of Textile Mills

At Less Cost

Requirements to Which a Lighting System Should Conform

By J. J. Berliner

WHILE the undoubted benefits, direct and indirect, resulting from an efficient lighting installation may outweigh to an enormous extent the comparatively small cost, it does not follow that this cost cannot be still further reduced by careful investigation and consideration of the various contributing factors.

Especially does the above apply with great force to a large number of installations in factories throughout the country, where poor lighting systems are in existence either through ignorance or lack of interest. You find bare lamps scattered about indiscriminately, sending a large quantity of useful and, incidentally, expensive light in every direction, except that in which it is required. Glare of a blinding insistency offends and damages the eyes, and jars the nerves. Here and there bright patches of light and corresponding patches of gloom represent light being wantonly misused and wasted.

Is Rewiring Necessary?

In a majority of these places, there is a great possibility of increasing the efficiency of the lighting system without even incurring the large initial expense necessary in rewiring and equipping an entirely new system. Often by changing the spacing of the lights and by the additions of reflectors, efficiency can be increased about 100 per cent.

But where an installation is obviously particularly inefficient, it will be found cheaper in the long run to redesign the whole lighting system and begin right. Work well begun is half done, but it is just that final investigation and careful consideration on definitely approved lines which will mark the difference between mediocrity and 100% efficiency and place the lighting expenses on the same productive plane as other items in the production and selling organization.

Every manager of an industrial organization, and for that matter of every commercial organization as well, should examine the lighting system and determine whether the maximum efficiency is really being obtained from the present lighting installation. Is the best possible return being obtained from present expenditures? In many cases, it will be found possible to even obtain better lighting results at the same cost, and, in some cases, a lower cost than the present.

Main Causes of Poor Lighting

Let us consider what the main causes of poor lighting are and deal with them in the order of their importance.

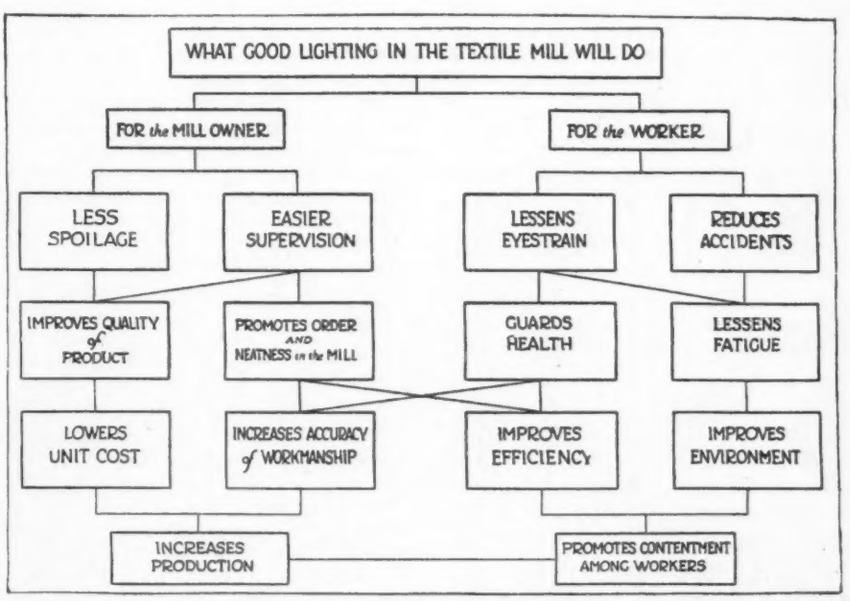
(1) *Inadequacy.* — Adequate light means two things: light sufficient to enable work to be carried on efficiently and light enough to afford safe and easy access from one part of the factory to another.

A simple test that the executive can make to ascertain whether the light is adequate for efficient work is to watch and see how many have to take their work to the window or the nearest light for something which requires fine measurement or close application. The answer to this simple test will prove definitely whether the artificial illumination is sufficient to work under, and will save the heavy loss occasioned by the poor light from spoiled material and wasted time.

(2) *Glare.* — Just as bad as, if not worse than, insufficient light, is too much light in the form of glare from bright, unshaded light sources. To say the least, it is harmful, if not actually dangerous. It is impossible for any man to work at the peak of his productive power when exposed to the irritating effects of glaring lights. Almost everyone has had the unpleasant experience at one time or other of looking into the glaring lights of an automobile when the lights were switched on full power and has felt that it hurts the eyes and has a most irritating effect. When workers are constantly under the strain of glaring lights, it not only lowers production materially but ultimately ruins the eyesight. This state of affairs can usually be overcome by the installation of suitable reflectors which will conserve the worker and ensure more efficient production.

Work in Own Shadows

(3) *Shadows.*—Very often, it will be noticed in a factory that many of the men work standing in their own light. It is a point that perhaps is not so noticeable, yet the fact remains that every man who works in his shadow is working in approximately half the light to which he is entitled. Thus he is under a distinct disadvantage, which in



(Courtesy of National Lamp Works of General Electric Co.)

Advantages of More Light to Employer and Employe

Good Spacing Distance Insures Uniformity of Illumination

turn is reflected in his reduced output and poorer quality of work. Very often all that is required to surmount this defect is a revision of the spacing of lights, and their equipment with suitable reflectors will ensure even distribution over the whole working plane. Moreover, in the revision of the lights a number of the original light sources are often found to be superfluous, and a saving results through their elimination, at the same time improving the illumination materially.

(4) *Badly Designed and Installed Lighting Equipment.* — Probably the cause of more wasted light than anything else is poorly designed and installed reflectors and equipment. Thus there are factories that have the most up-to-date machinery and labor-saving devices, and yet have lighting equipment which is entirely out of place. Thus, for instance, there are factories using the best electric lamps in conjunction with conical reflectors or no reflectors at all, blinding the workmen, retarding production, and generally tending to reduce the factory to its lowest efficiency level.

Inefficient Control

(5) *Inefficient Control.*—Sometimes improper control of the lighting system is an item of great expense. Thus, in the case of one factory, when an investigation was made for the purpose of cutting lighting costs, which in this particular case were excessive, a number of things were found. One big defect was in the switches. The switches were so arranged that if a person needed just one light, he had to turn on four or five lights, and sometimes more; entire floors were illuminated to accommodate a few workers in one section. Lights were also being used full strength during the day when there was a sufficiency of daylight.

These are representative of the many small leaks which can creep in and which, extended over a long period of time, mean a great increase in the cost of the lighting. In the illustration cited above, a saving of over 20% was made by slight modifications and by the gradual education of the workers.

Thus, the switching arrangements were altered so that the lights controlled by one switch were parallel to the window instead of at right angles, which meant that the lights furthest from the daylight were switched on first, and so on; notices were posted up asking the last one in the room to turn off all the lights when leaving. The different floors were submetered, so that a check could be kept on the current consumption of each, any excess being at once made the subject of investigation.

While on this subject, it can be taken as a general rule that workers in factories should not be afforded facilities for controlling individual lights themselves. It is a common practice in some organizations of providing individual lights on rise and fall pendants for each two or three operatives, with the result that each worker having a different conception as the best position of the light source for his particular job, will adjust the lamp to his own convenience and to the detriment of his neighbor's comfort and production. A system employing general lighting from a number of fixed light sources is by far the more preferable, and more economical.

Deterioration

(6) *Deterioration of Equipment and Surroundings.*—If the intensity of illumination is allowed to deteriorate, a large percentage of the installation's cash value will be lost. To prevent such waste, careful and continual attention must be given to the equipment and light sources and surroundings.

To start with, the surroundings—that is, walls, ceilings, etc.—should be of a light color where practicable, so as to obtain the fullest possible advantage of light reflection. This is one of the best inexpensive means of increasing the effective illumination in a factory and improving the general bright appearance. The cleaning and brightening up of walls and ceilings periodically is a highly desirable and necessary step toward lighting efficiency.

Lamp deterioration is another important cause of decreased illumination. Efficient as modern incandescent lamps are (or mantels, if gas is used), they deteriorate in time and become useless. As soon as a unit shows the least sign of impaired lighting efficiency, it should be replaced. Likewise, all lamps should be periodically and systematically cleaned, as light rays are easily intercepted and deflected by accumulated dust or dirt. Reflectors are affected in the same manner, and the small cost of periodical cleaning will be offset many times by the maintenance of the lighting efficiency.

A drop in voltage has very serious effects on electric-lamp efficiency. Thus a two-volt drop in a 110-volt circuit entails a lamp efficiency loss of over 5%, while a 5-volt drop means a 15% decrease in effective output.

Various tests on a wide variety of lighting installations by experts have produced surprising figures. Thus, for example, in one factory where only occasional maintenance was provided, the careful washing of lamps and reflectors resulted in a 37% increase in intensity. Again in an installation of lighting equipment which was satisfactory when made but where no maintenance whatever had been provided for, the replacement of lamps and the cleaning of reflectors increased the illumination no less than 80%. In another instance, the cleaning of walls and ceilings raised the illumination over 25%.

Unsuitability

(7) *Unsuitability.*—Different classes of industrial operations and work require different methods of illumination. Thus, for example, it would be most impractical to install a semidirect or totally indirect lighting system using open-type bowls where there is a large quantity of dust, dirt, and smoke always present. Neither would a direct-lighting system using flat distributing-type reflectors with high candle-power lamps be suitable in places requiring a restful light.

An illustration of this point is the case of one factory that had a lighting system of the direct type using a total of 1300 watts. The direct-type installation was changed to one using only indirect lighting with flat distributive-type reflectors and actually reducing the total wattage to 1000. Under the original lighting system, complaints by the workers of headache and eyestrain were frequent. The new system eliminated all this and produced better and more efficient work. In addition to the savings of 300 watts, it was estimated that production had been increased 12% by the change in the lighting system.

The important points to remember when considering the suitability of a lighting system are (1) constancy and uniformity of light, (2) prevention of glare, and (3) avoidance of shadows. Moreover, in any case, better lighting

does not necessarily mean a greater intensity of an increased lighting consumption.

Cost of System

The following is a table which will enable any factory executive to figure out the exact costs of installing or changing a lighting system by simply filling in the necessary figures.

Working hours per day.....
Average lighting hours per day.....
Working days per year.....
Lighting hours per year.....
Factory length by width.....
Square feet .....
Number of employees.....
Illumination intensity required.....
Number of foot-candles.....
Current consumption .....
Square feet .....
Cost of Installation per Unit
Lamps .....
Reflectors complete with lamp holders..
Wiring, material, and labor.....
Total cost of installing total units.....
Cost per day, spread over 1 year.....
Cost of Running per Unit
Energy for year per kw.-hr.....
Lamp renewal .....
Cleaning (12 times a year).....
Total cost of running total units.....
Cost per day .....
Labor Costs
Labor cost per day at.....per hour
Total cost per day at.....per hour

The comparative cost of installation will be as follows:

(a) Total labor cost per day.....
(b) Total installation cost per day spread over the year.....
Total Installation Cost per Day
Total labor cost per day.....
Ratio of installation cost to labor cost..

The comparative cost of running will be as follows:

(a) Total labor cost per day.....
(b) Total running cost per day.....
Total Running Cost per day
Total labor cost per day.....
Ratio of running cost to labor cost.....

In the modern factory, success in quantity production depends on attention to detail. Every defect that is liable to injure the health and endanger the safety of the worker, or to add to the strain of exacting work and cause "industrial fatigue," must be removed.

Good lighting is the best insurance against accidents and spoilage—and the premium is only nominal. It represents a financial saving plus the fulfillment of a moral obligation to employes. It is a tool, increasing production in the same way as improved machinery, but for a considerably lower investment for the results obtained.

What Constitutes Good Lighting

A modern factory lighting system should be designed to conform to the following requirements:

(1) Adequate illumination on the work.
(2) Proper direction of light rays.
(3) Freedom from direct and reflected glare.
(4) Good diffusion and avoidance of sharp shadows.

Courtesy of Westinghouse Lamp Co.

In This Installation the Proper Type of Reflector is Used for Eliminating Glare and Evenly Distributing Light

(5) Steadiness of light source.
(6) Proper color of walls and ceiling.
(7) Reliability and economy in service.

Adequate Light.—The lighting system should supply enough light to the object so that the amount reflected from it to the eye will be sufficient for clear and comfortable vision. This depends not only on the light source but on the character of the object illuminated. Thus, white surfaces reflect as high as 80% of the incident light; while black reflects only a fraction of 1%. Obviously, therefore, a higher intensity of illumination is necessary when the materials worked on are dark in color. Likewise, for rough work a moderate intensity of illumination is adequate, while for fine machine work involving close attention to detail, a much higher degree of light intensity is required.

Direction of Light.—Light, to be as effective as it should be, should fall on the working plane from many sources, so as to avoid sharp shadows and objectionable contrasts. Accordingly, the installation of a number of smaller light sources is much more preferable to that of a few large ones, as better distribution is assured and the worker moreover does not work in his own shadow.

Glare.—To insure continued and efficient service, the eyes must be protected. Under the influence of glare, the pupil of the eye contracts appreciably, resulting in decreased ability to see, whereas under proper lighting it expands normally, thus allowing greater distinctness of vision.

Modern artificial light sources in their bare form are very brilliant and should never be used without correctly designed reflecting equipment. Their brilliancy is an unavoidable necessity to their high efficiency; but it is essential to divert this efficiency into the proper channels to derive its greatest advantages.

Diffusion.—In industrial artificial lighting, diffusion is usually obtained by (1) obstructing and breaking up the direct rays of light by means of large vitreous enameled reflectors of special contour, opal bowls, etc., and (2) by installing the light sources so that the reflected light falls on the work from many directions.

Steadiness of Light Sources.—Flickering light sources are as dangerous as glare, in that undue strain is put upon the eyes in attempt to adapt themselves to the various degrees of light.

Color of Surroundings.—The color of walls and ceilings plays a very important part in the efficiency of any lighting system. Wherever practicable, they should be of a very light tint so as to obtain the maximum efficiency from reflection. In addition, there is the psychological effect of light surroundings in any place where work is being performed. This is an important factor.

Reliability and Economy.—A lighting system to be efficient must be capable of easy maintenance, and sufficient elasticity to take care of any future extensions or additions to the plant. In this connection, a general lighting plan which provides ample intensity over the whole area, is preferable to a local lighting scheme over individual machines. With the former the location of machines can be altered at any time, or a new plant added without altering the lighting points.

Selection of Equipment.—In selecting lighting equipment, great care must be exercised in getting the correct equipment. Efficiency in lighting equipment is dependent on correct distribution and diffusion, and these can only be obtained by correct design, careful and accurate manufacture, and proper installation.

True Truck Economy for Mills

Selecting Suitable Trucks for Particular Purposes—Driver Problems

By Morris A. Hall

USUALLY the basis for judging a delivery system is its total cost per mile or per ton carried. With the manufacturer, either of these or the ton-mile combination unit is a satisfactory yardstick.

Collection of freight from railroad stations is a bulk job, with tonnage the most important consideration, since distances are likely to be short. In such work, convenient height of truck-loading platforms, congestion at the platforms, speed and skill of the driver and helper in trucking and stowing the load, and similar matters have a larger influence on end-of-the-year figures and results than any qualities built into chassis and body.

Distances and Value of Cargoes

In deliveries of finished textiles to wholesalers or retailers, also of yarns and semi-finished raw materials to weavers, there enter the elements of distance, value of load, safety, and other factors. It is possible to bring in speed, too, because the greater the distance the more of an influence truck speed has on the haulage totals. One manufacturer used his original trucks within a 40-mile radius, these averaging 50 miles a day. They handled more than three-quarters of the incoming freight, this amounting to 50 carloads a week. As later and speedier trucks of the same capacity were bought, it was found possible to reach farther points, so now some trucks are serving these and averaging 90 miles a day. A still faster truck, bought to serve a very distant customer, works regularly on a 122-mile route.

The first 5-tonners had a speed of 10 m.p.h., so the day was made up of 5 hours' running time, 4 hours on delivery. The later trucks could make 12 m.p.h. average, so the day consisted of 7½ hours' running and 1½ hours deliveries. The latest truck can average better than 15 m.p.h., so its driver's day is divided into 8-plus hours' running and 1 hour scant for delivery.

Greater Speed Widens Field

The faster trucks widened this manufacturer's sales field, while the latest still-faster one widened it more. The last-named is equipped with huge pneumatics, dual rears; without these the speed would be impossible because of the inability of the mechanism to withstand the constant pounding from the road.

With the manufacturer located in a large city and working largely within its limits, easy steering and maneuverability, driver's convenience and comfort, and carrying capacity are more important than speed. One such firm delivering directly to retailers, served 265 stores five years ago, 386 one year ago, and is serving almost 500 now. The work is done by 16 5-ton trucks and nine 2-tonners. The smaller trucks handle the small deliveries; the bigger ones, large loads. There has been no instance in which speed has an excess value, so none of these larger trucks are on pneumatics, although all the 2-tonners are so equipped.

In any system, small tonnage and short distances call for a small- to medium-sized vehicle with considerable speed; large tonnage and short distances, larger bodies and less speed; tonnage and long distances, larger bodies and as much speed as the loads and mechanism will permit. The many deliveries and collections of the first-named mean quick and easy starting, equally quick and easy stopping, good acceleration, and easy entrance and egress from driver's seat. These qualities with the size and speed narrow the trucks down to 1 to 2 tons, pneumatically equipped, usually with panel bodies.

Greater Capacity and Safety

In the second group starting and stopping are not so important. These qualifications point to 2- to 4-ton trucks with tire equipment variable, panel or easily-opened bodies on the tarpaulin-covered or sided express order. The third group needs to specify 3- to 5-ton trucks, in some cases 5-tonners pulling trailers, tire equipment trending to solids normally, while exceptionally long distances force dual pneumatics. Body forms trend to the panel, which is emphasized in some cases by the very high value of the load, so that theft protection is very necessary. Then the panel may be reinforced by metal sides and with special front and rear enclosing and locking arrangements.

Mention of tire forms brings up the relative economies of various sizes, of high-pressure cords versus balloons, of pneumatics against cushions or solids. As this is a subject for more extended discussion, here it will suffice to say that the trend in truck construction is toward pneumatics in all but the very largest and heaviest, or those for the roughest work. Tremendous improvements in road and pavement surfaces have had a huge influence in this direction.

Body Forms to Consider

In body forms the trailer and semi-trailer must have consideration. Tonnages, available time, distances, and costs are balances to find whether plain truck, truck and semi-trailer, or truck and separate trailer are best. It may help to refer to the equipment used by a Southern cotton ginner and shipper. This firm uses two special high-speed 1½-ton trucks, one with semi-trailer on balloon tires. One hauls 40 or more bales of cotton per day, bringing back to the gin 20,000 lbs. of freight. With an 8-bale load this is accomplished in five trips. The other can handle 21 bales with the trailer and makes five trips a day, thus moving in excess of 100 bales a day. Railroad charge is $1 a bale, so this truck saves $100 a day freight charges, thus making a marked economy over railroad haul plus terminal truck haul, also saving much time and trouble.

It is difficult to enlist the active mental all-day cooperation and support of drivers. Many and varied payment plans have been devised to bring that happy condition in which each driver always conducts himself and handles his truck and load as though it were his own business. In some businesses, it is possible to hire men of no education, lacking in appearances, and simply able to shift gears and keep within traffic regulations. Such men come to the management at a low figure, but they bring other problems plainly traceable to lack of education, lack of any knowledge or skill beyond making the truck go. In working toward the utmost delivery economy, a higher grade of drivers has been found better in the long run. Special compensation has proved advantageous, has avoided law suits, accident delays, truck damage, customer complaints, excessive maintenance and repair costs, and other things with a large influence.

Department stores have special payment plans, one crediting all drivers with 3c. for each gallon of gasoline saved over the same month of the previous year and 75c. for each thousand miles beyond the tire guarantee. Paying a driver $15 to $25 in this way may easily save hundreds. An ice company pays $9 monthly bonus, based on $2 for avoiding *all* accidents, $3 for *total* lack of complaints from customers, and $4 for care of truck. Some of your drivers receiving $9 a month, less than $100 a year, might save you thousands.

True delivery economy must consider all these things, tangible and intangible; must reject those that do not apply; accept those that do; and in the end produce the greatest total mileage, tonnage, and deliveries, plus the greatest amount of advertising, and plus the greatest all-around customer and owner satisfaction.

Tests Made by Clemson Textile Dept. for Mills

The Textile Department of Clemson College rendered to the mills of South Carolina during last year the following service tests, as well as many others:

1. Tests on per cent size in fabrics.
2. Tests of yarn spun from same roving at mill and at Clemson.
3. Comparative tests of fillings and warps.
4. Tests on check straps.
5. Made special fabric and tested different twists inserted.
6. Tested color samples by fadeometer.
7. Tests of roving (slubber, intermediate

and speeder) and of bobbins of yarn for evenness and uniformity. (Roll setting and humidity control recommendations made.)

8. Tests of sheets and pillow cases, both bleached and gray, with Mullen tester; also test of warp and filling strengths.

9. Analysis of fabric for size and for percentage of cotton and linen.

10. Tested many samples of 40x40 sheeting as to filling strength.

11. Desized print cloth and secured weights tested; warp and filling for size of yarn.

12. Test on comparative strength of 80s combed yarn, 4:00 multiplier, when spun with plain and with roller bearing spindles.

Welds Cast-Iron Cylinder

Repairs Air Compressor Quickly at Little Cost

When a certain concern set up a new air compressor in its plant, it discovered that the compressor had been damaged so badly in transit across the country that when put in operation the cylinder wall leaked; and instead of pumping air, it pumped water. Inspection of the damaged compressor by the plant manager showed that the water was coming from a crack in the cooling-water jacket with which air-compressor cylinders of this type are usually cast.

Here was a job for the plant welder. He immediately dismantled the compressor; and after first veeing the crack in the cylinder wall, which extended between the two intake air ports, he slung the casting on an overhead trolley

Oxwelding Cylinder of Air Compressor

and ran it out into the yard. Next a small brick preheating furnace was built under the suspended piece. A charcoal fire was lit and the preheating flames confined to the damaged portion only. After sufficient heating of the cast-iron piece, welding was begun. A good quality of cast-iron rod and flux was used. The job was completed in a few hours without difficulty.

Estimates of the amount of time and money saved in this repair job were very gratifying. The plant suffered only a few hours shut down and the total repair cost was but a trifle over $25. Under the old method of scrapping and replacing with new parts, a delay of several weeks would have been entailed and an expenditure of several hundred dollars for a new part.

The Wide-Awake Master Mechanic

Alert and Conscientious Mechanical Department Is Good Investment

By H. H. Iler

THE wide-awake master mechanic will anticipate many mechanical failures, and provide himself with such replacements that a minimum of time is lost in interruptions of operation when such failures occur. In many cases the failure may be avoided by having the replacements ready, and installed before failure does occur. Carefully kept records of all the different jobs which come to the mill machine shop will in the course of time provide the master mechanic with a means of knowing pretty accurately just what parts and how many should be provided as spares. On the other hand, this is a way to help reduce inventories, and thereby save taxes.

Excessive Shafting Load

A certain master mechanic happened to run across some records of power consumption in another mill similar in size and equipment to that in which he was employed, and was struck by the fact that his own power consumption was considerably higher. Both these plants were old mills which were mechanically driven by steam engines before their conversion to electric drive of the group type. Hence the shafting arrangements had been but little changed. The discrepancies noticed showed up in a comparison of shafting loads.

Re-aligning all shaft lines, tightening pulleys and couplings, and seeking out excessively tight belts, brought about a reduction in power consumption, but did not reach the mark made by the other mill. When, however, a complete and thorough cleaning of all shaft bearings had been made, and fresh oil had been supplied to them, the power consumption figures dropped to the desired point. It is not hard to see that this master mechanic had influenced his plant's ultimate costs over a long period of time in an unfavorable way, while the more alert and progressive master mechanic had helped his mill to keep figures out of "the red."

Distributor Belt

A certain Southern mill found itself unable to put a sufficient amount of cotton through the distributor to keep all the pickers supplied throughout a steady run. Since the distributor was already being operated at the limit of its speed, the only solution to the problem seemed to be the purchase of a wider one, the cost of which was found to be over $1,000. The superintendent was willing to place the order for a wider distributor, and would have done so had not the carding overseer asked for delay in order that he might make some further study and make sure of his ground.

The carding overseer, having considerable faith in the resourcefulness and designing ability of the master mechanic in his plant, went down to the machine-shop office for a conference. The two of them, studying the details of the question, reached the conclusion that the present old distributor might be re-designed without the purchase of more than a wider carrier belt, a few castings, and a pulley or so. Within two weeks the work was completed. The total cost of this change, as made, figured a little more than $300, inclusive of the wider carrier belt.

Spinning Bands

In another mill the consumption of spinning bands was excessively high, and as these bands were made by a banding machine which was under the supervision of the master mechanic, he became inquisitive and started investigating the conditions under which the bands were used by the spinning room. Circumstances seemed to indicate that a band of smaller diameter would serve better, so a test lot of bands was made by leaving out one of the eight strands of roving from which all the mill's bands had been regularly made for years. These test bands were tied on along with an equal number of regular-sized ones, with the result that all the smaller bands ran for longer periods of time before breaking than did those of the old standard size. It was figured later that in one year, the mill saved two bales of cotton by standardizing on the new type of band.

These instances are only a few of the many which could be related to show that alert and conscientious heads of mechanical departments represent an investment from which large and gratifying returns may reasonably be expected.

Eastern Carolina Division of S.T.A. to Meet on Oct. 18

The Eastern Carolina Division of the Southern Textile Association will hold its fall meeting at the State College Textile School, Raleigh, N. C., Oct. 18, according to an announcement from Joseph C. Cobb, Charlotte, N. C., secretary. Members have been asked to submit questions at the meeting in order that the discussion will be of interest to the majority of the mill men present. N. B. Hill, superintendent, Caswell Cotton Mills, Inc., Kinston, N. C., chairman of the division, will lead the group discussion, which will be a feature of the meeting.

Heat Insulation

(Continued from page 71)

surrounding air of 250°, 300°, and 350°, which, with an air temperature of 70°, correspond to steam pressures of about 75, 160, and 300 lb., respectively. While made in different thickness for various conditions, the regular sectional covering commonly runs from about 1 to 3 in., varying by ½ in.

Table IV is for a multi-ply asbestos covering, with the same temperature differences, but with thicknesses of 2 and 3 in.

Table V applies to a special high-temperature covering, made up of an inner and an outer layer of different materials. The temperature differences in this case are for 425°, 525° and 625°, which correspond closely with 300 lb. pressure, with saturated steam in the first case; the same pressure, with 100° superheat, in the second case; and 200° superheat in the third case.

The thickness of covering is an important item in any job of insulation, and must be carefully studied in order to obtain the highest return upon the money invested. If the covering is too thin, heat is wasted; and, if too thick, any additional saving in heat is overbalanced by the added cost of the covering. Among the various factors are the cost of steam, temperature difference between the bare pipes and surrounding air, conductivity of the insulation, cost of insulation, and fixed charges.

While these items should all be carefully considered when making a very accurate estimate on a large plant, the following simplified method will answer very well in the average case. Although the tables refer particularly to 85% magnesia covering, they can be used with satisfactory results for any type of covering having approximately the same efficiency. They are based on average conditions of operation, and for a period of 8,760 hours per year. In transforming the cost of steam into cost of coal, it has been assumed that 75% of the cost of steam is for coal, and that 1 lb. of coal will evaporate 7 lb. of water, and also that each pound of steam contains about 1,000 B.t.u. above feed-water temperature.

In Tables VI and VII, *S* stands for "standard thickness," and *DS* for "double-standard thickness," which are as in Table VI for 85% magnesia covering.

Example: Cost of coal, $4.25 per ton; steam pressure, 180 lb.; size of pipe, 12 in. What thickness of covering should be used to secure the greatest economy?

The table for coal at $4 per ton (Table VII) comes nearest to the given cost, and the steam pressure is between 100 and 200 lb. Follow down the pressure column to the line corresponding to a 12-in. pipe, where we find the required thickness to be *DS*, which, from Table VI is found to be 3 in. If the pressure had been 200 lb., with 300° of superheat, 4 in. of covering would be required, other conditions being the same.

TABLE III

Efficiency of 85% Magnesia Covering

Pipe Size,	Temperature Difference 250° Thickness		300° Thickness		350° Thickness	
In.	1½ In.	2½ In.	1½ In.	2½ In.	1½ In.	2½ In.
1	81.0	84.6	82.5	85.9	84.0	87.1
2	84.8	88.3	85.9	89.3	87.1	90.3
4	87.3	90.7	88.3	91.6	89.3	92.3
6	88.3	91.7	89.3	92.4	90.2	93.1
10	89.2	92.5	90.1	93.2	91.0	93.7

TABLE IV

Efficiency of a Multi-Ply Asbestos Covering

Pipe Size,	Temperature Difference 250° Thickness		300° Thickness		350° Thickness	
In.	2 In.	3 In.	2 In.	3 In.	2 In.	3 In.
1	87.3	89.7	88.2	90.2	88.9	90.7
2	89.9	91.9	90.5	92.3	91.0	92.7
4	91.3	93.3	91.8	93.7	92.3	94.1
6	92.2	93.9	92.6	94.2	93.0	94.6
10	92.6	94.5	93.0	94.8	93.5	95.1

TABLE V

Efficiency for a Special High-Temperature Covering

Pipe Size,	Temperature Difference 450° Thickness		525° Thickness		625° Thickness	
In.	2½ In.	4½ In.	2½ In.	4½ In.	2½ Ih.	4½ In.
4	93.4	95.4	94.4	96.1	95.1	96.6
8	94.4	96.3	95.3	96.7	95.9	96.3
12	94.9	96.7	95.7	97.2	96.2	97.6
16	95.0	96.9	95.8	97.3	96.3	97.7
20	95.1	97.0	95.9	97.4	96.4	97.8

TABLE VI

Diameter of Pipe, In.	*S*, In.	*DS*, In.
¾	1	1½
1½	1	1½
3	1½	2½
6	1½	2½
12	1½	3
24	1½	3

TABLE VII

Coal at $2.00 Per Ton

Size Pipe	Hot Water 175° F.	Steam 5 Lb.	Steam 100-200 Lb.	200 Lb. 150° F. Superheat	200 Lb. 300° F. Superheat
¾″	S	S	S	1½″	DS
1½″	S	S	S	1½″	DS
3″	S	S	S	1½″	DS
6″	S	S	1½″	2″	DS
12″	S	S	1½″	2″	DS
24″	S	S	2″	3″	DS
Flat	1″	1½″	2″	3″	3½″

Coal at $4.00 Per Ton

Size Pipe	Hot Water 175° F.	Steam 5 Lb.	Steam 100-200 Lb.	200 Lb. 150° F. Superheat	200 Lb. 300° F. Superheat
¾″	S	S	1½″	DS	2″
1½″	S	S	1½″	DS	2″
3″	S	S	DS	DS	3″
6″	S	1½″	DS	3″	3″
12″	S	1½″	DS	3½″	4″
24″	S	1½″	DS	3½″	4″
Flat	1½″	2″	3″	4″	5″

Coal at $6.00 Per Ton

Size Pipe	Hot Water 175° F.	Steam 5 Lb.	Steam 100-200 Lb.	200 Lb. 150° F. Superheat	200 Lb. 300° F. Superheat
3″	S	S	DS	2″	2″
1½″	S	1½″	DS	2″	3″
3″	S	1½″	DS	3″	3″
6″	1½″	2″	DS	3″	4″
12″	1½″	2″	DS	4″	4″
24″	1½″	2″	DS	4″	5″
Flat	2″	3″	4″	5″	6″

Cotton Yarn Mill Notes

Tabulated Instructions for Doffing a Picker

By Gilbert R. Merrill

This is the seventh of a series of short articles on the correct operation of cotton-yarn machinery. The articles are written as brief instructions, tabulated in logical order and expressed in straight-to-the-point language. Previous articles of the series appeared July 6, p. 111; July 13, p. 73; July 20, p. 63; Aug. 10, p. 38; Aug. 31, p. 55; and Sept. 21, p. 63.—*Editor.*

1. Stop the card.
2. Remove the roll of flat strips.
3. Disengage the doffer gear (barrow gear).
4. Disengage the doffer calender and coiler gearing.
5. Put the stripping roll on the cylinder stands so it runs with the points down where it comes in contact with the cylinder.
6. Put on the shorter stripping-roll band from the loose pulley to the stripping roll, crossed.
7. Slip the main belt half way on to the tight pulley to turn the cylinder slowly. Keep the loose pulley up to speed all the time.
8. After one complete turn of the cylinder, remove the stripping-roll band, and lift the stripping roll out of the stand *at once.*
9. Move the main belt to the tight pulley.
10. Strip the stripping roll by turning it backward in the stands of the stripping box.
11. Put the stripping roll on the doffer stands as on the cylinder.
12. Put on the longer stripping-roll band, crossed.
13. Move the main belt part way back on the loose pulley to drive the stripping roll. The rest of the card will run by the momentum previously obtained.
14. Start the doffer in the usual way.
15. After one complete revolution of the doffer, remove the stripping-roll band, and lift the stripping roll out of the stands at once.
16. Strip the stripping roll as before.
17. When the web is up to weight, break it off clear across, hold the end in contact with the end in the doffer calender roll, and re-engage the calender-roll drive.

(NOTE: As the cylinder and doffer collect more fibers in the clothing just after stripping, the sliver is likely to run light for some minutes.)

Managers and Overseers To Hold Annual Meeting

PHILADELPHIA.—The Managers' and Overseers' Provident Society will hold their annual meeting and dinner Oct. 26 and the committee in charge is arranging an attractive program under the direction of Norman Redman, secretary. This organization has in its membership a large proportion of the managers and overseers in the city's worsted manufacturing firms.

THE PERSONAL PAGE

R. **E. Royall,** president of the Royall Cotton Mills, at Wake Forest, N. C., since the company was organized, has retired on account of ill-health, and Don **P. Johnston** has been elected to succeed him. Mr. Royall was elected to the new position of chairman of the board of directors. **William L. Royall** was re-elected secretary and treasurer. W. **R. Powell** was re-elected vice-president, and **Hugh Camp** was elected to a new vice-presidency. Directors in addition to these officers are **Lewis M. Powell** and **Harvey Seward. George H. Greason** continues as superintendent.

J. A. Carson, president of the Georgia Knitting Mills, of Barnesville, Ga., manufacturers of women's knit rayon underwear, has recently been installed Mayor of Barnesville, succeeding **E. L. Coleman.**

P. J. Wood, vice-president and general manager of the Oriental Silk Printing Co., Haledon, N. J., was one of the principal speakers at the recent meeting in Paterson, N. J., of the National Association of Textile Printing Colorists, describing new developments in textile printing that came to his attention on a recent European trip.

Stuart W. Cramer, prominent textile executive of Charlotte, N. C., while not in a serious condition, has been ordered by physicians to take a complete rest, it is reported.

John S. Lawrence, of Lawrence & Co., dry goods commission merchants, Boston, Mass., is to be one of the principal speakers at the labor congress to be held under the auspices of the workers educational bureau of the American Federation of Labor at Worcester, Mass., Oct. 25-27.

W. Irving Bullard, of the E. H. Jacobs Mfg. Co., mill supplies, Danielson, Conn., and treasurer of the National Association of Cotton Manufacturers, is enjoying an extended European trip and is not expected to return to this country until November.

Dr. Thomas Nelson, dean of the Textile School of North Carolina State College, Raleigh, N. C., formerly an instructor at the Lowell (Mass.) Textile Institute, has been awarded a doctor of science degree by North Carolina State for 25 years of meritorious service. Dr. Nelson is also a fellow of the Royal Society of Arts, London.

Takenojo Kamatani, a director and cotton buyer of the Japan Cotton Spinning Co., Ltd., of Osaka, Japan, was a visitor to Dallas, Tex., where he called upon the Japanese cotton firms there a few days ago. Mr. Kamatani is making an extensive tour of the cotton growing sections of the South, in order to get first hand knowledge of the cotton crop this year.

Beirne Gordon, Jr., vice-president of Oneita Knitting Mills, Utica, N. Y., has been elected vice-president of the Utica Chapter of the National Aeronautic Association recently formed in that city with twenty-five members for the promotion of aviation in Utica and vicinity.

H. E. Machold, vice-president of the Skenandoa Rayon Co., Utica, N. Y., is a director in the Ontario Underwear Co., of New York City, which has just been chartered under state laws.

G. H. Uhlig, vice-president and general manager of the Uhlig Division of the Associated Dyeing & Finishing Corp., has resigned to become vice-president and general plant manager of the Standard Silk Dyeing Co., Paterson, N. J.

William Mitchell, vice-president of the Maine Spinning Co., Skowhegan, Me., who retired as superintendent last spring, was tendered a surprise party by employes of the company Sept. 28, and presented with a desk clock. Mr. Mitchell was superintendent for 24 years and will take up his residence at Methuen, Mass., shortly.

A. K. Wingate, Gastonia, N. C., textile manufacturer, was elected president of the Gaston County Textile Manufacturers Association for the coming year. Mr. Wingate succeeds **J. H. Separk** as president of the association.

D. B. Hardin, Terrell, Tex., has accepted an offer of a Fellowship at the North Carolina State College of Textile Engineering, Raleigh.

G. Horton, Staley & Staley Knitting Co., Ltd., Melbourne, Australia, who has been in the United States for the last six months, will sail for his home in Australia, Oct. 10.

James Munro, who has been associated for many years with John H. Hanaford, cotton merchants, Boston, Mass., has been appointed manager of the cotton futures department of the Boston office of John F. Clark & Co.

Lloyd Kirkpatrick, associated for the last 15 years with the Boston office of the Wonalancet Co., Nashua, N. H., importers of foreign cotton, carders and combers, has recently resigned his position with that company.

Hans Roessler and family of Chemnitz, Germany, have arrived in Shelbyville, Tenn., where Mr. Roessler has accepted a place as superintendent with the Woolsey Hosiery Mills, having been former superintendent of a full-fashioned silk hosiery plant in Chemnitz.

Rufus W. Scott, of New York City, chairman of the board of directors of the American Chatillon Corp., made an inspection trip to the plant at Rome, Ga., last week.

Mrs. Paul Trogdon, who has been musical director in the graded schools, in the Cone mill villages, at Greensboro, N. C., for the last three years, has resigned, in order to go to her brother who is ill in a hospital in China, where he is engaged in business for an American tobacco company.

Frank O. Landrum, of Laguna, Tex., who was endorsed by Senators Connally and Sheppard and Congressman John S. Garner of Texas, has received notice of his appointment to a position on the advisory committee of the Federal agricultural board. Mr. Landrum has been identified with the goat and mohair industry for 36 years and was one of the organizers of the National Mohair Growers' Association, of which he was chairman for six years. He represented the mohair interests before the committees of the House and Senate in connection with the pending tariff bill, and will represent the sheep and goat interests at the national conference in Chicago in October.

F. Nathaniel Perkins, secretary of the Boston Wool Trade Association and a trustee of the Y. D. Men's Club of Boston, sailed recently on the "Carmania" for Cherbourg, France, on a Y. D. pilgrimage to Belleau where a church will be dedicated by the Yankee Division.

Phil Steel, Mauney-Steel Co., Philadelphia, will sail from Hamburg, Germany, Oct. 9 for New York on the "Milwaukee." Mr. Steel has been abroad for six weeks visiting his son who is living in Germany at the present time.

Henry W. Walker, for more than 15 years knit goods buyer of the Wheeler & Motter Mercantile Co., St. Joseph, Mo., has joined the sales department of the Standard Knitting Mills, Knoxville, Tenn., and has become associated with **James L. Brownlee,** at the mill's New York office.

Miss Hilda Ruth Swindell, who for the last several years has held a responsible position in the offices of the Cannon Mills, Kanapolis, N. C., and **Julian Carr Harmon,** an overseer in the Cannon Mills, were married Sept. 21.

A. J. Harwood, of Indianapolis, has been appointed Indiana agent of the Atlas Underwear Co., manufacturers of union suits and ribbed underwear, with plants at Piqua, O., and Richmond, Ind.

Donald R. Jonas has been appointed to cover the southern trade in mercerized yarns for Boger & Crawford Spinning Mill, Lincolnton, N. C.

James L. Coughlin is now associated with the Providence (R. I.) Dyeing, Bleaching & Calendering Co.

Albert O. Smith, formerly assistant designer at the National Weaving Co., Lowell, N. C., is now head designer at the Spencer Corp., Spindale, N. C., and not Shelby, N. C., as previously reported.

A. F. Bruton, general manager and assistant treasurer of the Saratoga-Victory Mills of Albertville and Guntersville, Ala., has submitted his resignation, effective Oct. 15, to become general manager of the Hannah Pickett Mills No. 1 and No. 2 at Rockingham, N. C.

William Hill has recently been appointed master mechanic of the Ala-

bama Mills Co., Haleyville, Ala., succeeding **W. M. Morgan,** who resigned recently to accept a position in Dallas, Texas.

W. J. Logan, master mechanic, Anderson (S. C.) Cotton Mills, recently presented a complete set of McGraw-Hill electrical text-books to the Anderson Public Library.

Harry Richardson, formerly superintendent of the Moosup (Conn.) plant of Aldrich Bros. Co., has returned to his home in that town from a European trip.

Frank L. Bills, who for 23 years was superintendent of the Lonsdale Co., at Blackstone, Mass., until his transfer to the Berkeley (R. I.) Mill of the same concern, has been made superintendent of the Ashton (R. I.) Mills, where he succeeds **Robert K. Stewart,** who recently resigned.

Roy Putman, of Gloversville, has been appointed general superintendent of the Canadian branch of the Superior Silk Mills, Gloversville, N. Y.

J. C. Werner has resigned as general superintendent of the Globe Woolen Mills, Utica, N. Y., after a long period of service.

J. B. Holt is now superintendent of the Rodman Heath Cotton Mill, Waxhaw, N. C.

J. L. Brannon, formerly connected with the Alabama Mills Co., is now superintendent of the Barrow County Cotton Mills, Lawrenceville, Ga.

Samuel Lord, after more than 40 years of continuous service with the Talbot Mills, of North Billerica, Mass., retired with a pension on Sept. 28. Mr. Lord, who is 75 years old and who was the oldest employe of the Talbot Co., is a native of England. He has worked in various capacities in both the weaving and spinning departments.

L. C. Coggins, formerly overseer of twisting at the plant of the American Chatillon Corp., at Rome, Ga., has become overseer of twisting at the Amphill, Va., plant of the Du Pont Rayon Co.

A. F. Costello is now overseer of dyeing at the Lumb Knitting Co., at Pawtucket, R. I.

M. L. Wiggins has resigned as overseer of spooling, winding, twisting, etc., at the Aragon-Baldwin Cotton Mills, Inc., Whitmire, S. C., and has been succeeded by **J. P. Childress.**

J. T. Bynum is now head of carding, spinning and twisting at the Fitzgerald (Ga.) Cotton Mills. He formerly held a similar position with the Appleton Co. of Anderson, S. C.

L. A. Cottrell is now head of the weaving, slashing and drawing-in departments of the Peerless Cotton Mills, Thomaston, Ga.

John Pauley, formerly employed as second hand in the carding department for the Rockwell Mills, Leominster, Mass., has taken a position as overseer carding for the Standard Yarn Co., Worcester, Mass.

Adolph Eyber, for the last three and one-half years in charge of finishing for the Rock River Woolen Mills, Janesville, Wis., has resigned his position with that company.

H. E. Harden is now head of the night work in the spinning, spooling and warping departments of the Shelbyville (Tenn.) Mills.

A. P. Wilson has been appointed overseer of the cloth room of the Ladlassie Mills, Anderson, S. C.

J. J. Tolbert, formerly section hand at the Dixie Mercerizing Co., Chattanooga, Tenn., has resigned and gone to Shannon, Ga., to make his home.

Carl Reames, second hand in night carding at the Watts Mills, Laurens, S. C., has resigned.

P. H. Bonner Wins Tub Silk Name Contest

Vice-President of Stehli Silks Corp. Suggested "Lavelle" Which was Chosen from Over 2,000 Entries

It was announced at the office of the Spun Silk Research Committee, in New York, Tuesday that the national contest for a name to replace tub silks was won by Paul Hyde Bonner, vice-president of Stehli Silks Corp. Mr. Bonner's suggestion was "Lavelle". The new name was adopted after consideration by many individuals who cooperated with the Spun Silk Research Committee in choosing the name.

J. Ralph Corbett, executive director of the Spun Silk Research Committee announced a complete plan has been prepared for the merchandising of fabrics under the name "Lavelle" and that ten firms have agreed to the committee's standardization program involving the manufacture of wash silks under the name "Lavelle".

Identification labels are being prepared to serve department store buyers and garment manufacturers as an identifying mark for "Lavelle" fabrics now being manufactured according to the minimum specifications approved by the committee. These specifications, based on finished fabric, are as follows:

Warp—120 ends per inch of 20/22 denier raw silk.
Filling—Eighty picks per inch of 62/1, first quality spun silk yarn free from throwsters twist.
Workmanship—The fabric shall be woven to meet commonly accepted standards of workmanship.
Width—Minimum width 31-32 inches finished. (36 and 40 inch widths recommended.)
Pure Dye—Fabric to be pure dye only.
Color Fastness—Colors shall not fade when the fabric is immersed and agitated for 15 minutes in a ½ per cent solution of 88 per cent neutral soap at a temperature of 105 degree Fahrenheit.

The committee's announcement concerning the choice of the new name "Lavelle", plus a plan for merchandising these fabrics on a national scale, will be mailed to a list of 20,000 department stores, general stores, chain groups, mail order houses, garment manufacturers and wholesalers.

Luncheon Will Open World Silk Conference

Function to Be Held Oct. 15 at Hotel Astor, New York—Plan Numerous Addresses

An opening event of the Second International Technical Raw Silk Conference, which will take place at the Hotel Astor from Oct. 15 to Nov. 8, with delegates present from the major silk producing countries of the world, will be a luncheon on Oct. 15. Delegates to the conference will be guests of honor at the event, which will be open to the silk trade, according to an announcement made by the Silk Association of America, Inc.

William C. Cheney, who headed the official delegation which attended the First International Technical Raw Silk Conference held at Yokohama in 1928, will preside at the luncheon. Addresses of welcome will be made by various members of the silk trade and of the delegations. The reception committee for the convention, headed by Paolino Gerli, of E. Gerli & Co., is in charge of arrangements for the luncheon.

Appointment of nine Italian representatives to the conference completes the list of delegates. Messrs. Gino Bonazzi, Gianni Oriani, and Carlo Maria Zanotti representing the Ente Nazionale Serico sailed on the Conte Grande Oct. 4 to attend the conference. Four members of Italian firms in New York were also appointed, including Cav. Stafano Berizzi, Berizzi Brothers Co., Inc., Signor Paolino Gerli, E. Gerli & Co., Inc.; Conte Alfonso Facchetti Guiglia, A. Facchetti-Guiglia; Conte Alfonso Villa. It is expected that the Italian consul in New York will act as chairman of the delegation. Romolo Angelone, commercial attache at Washington, will represent the Royal Italian Government.

Thirteen Japanese delegates arrived in New York Oct. 1 from Chicago, where they made a brief visit en route from the coast.

Three members of the Chinese delegation arrived in New York, Sept. 28. Two more members of the Chinese deputation, sailed from Shanghai Sept. 21 on the "S. S. President Taft" and will arrive at Seattle today.

Representatives of the Japanese Imperial Government and of the raw silk industry of that country were formally welcomed to New York and the Second International Technical Raw Silk Conference by the Silk Association of America, Inc., at its headquarters in New York, Friday, when the sixteen members of the delegation were presented to H. Schniewind, Jr., president of the Silk Association.

The Japanese deputation arrived in New York Monday and was met by Paolino Gerli, E. Gerli & Co., Inc., former president of the Raw Silk Exchange and chairman of the conference reception committee and by other officers of the Silk Association and of the United States Testing Co., Inc.

NEW MACHINERY & PROCESSES

Dyeing-Machine Head

New Propeller Drive for Circulating Machines

The Hussong Dyeing Machine Co., Groveville, N. J., has developed a new head, known as Type M, for circulating dyeing machines. The objects in the designing of the new head have been to increase operating efficiency, durability, and dependability of all operating parts.

Hypoid spiral bevel gears are used, totally enclosed, and running in a bath of oil. The main drive shaft runs continuously through the housings, thereby insuring equal load on all of the driving pinions. All shafts are mounted on high-grade thrust and radial double-row ball bearings. All ball bearings are protected from the gear lubricant, and are lubricated by means of the Alemite grease system. The main housing is completely sealed to avoid seepage of grease and lubricant. The flexible coupling is of suitable manufacture to withstand dyehouse conditions.

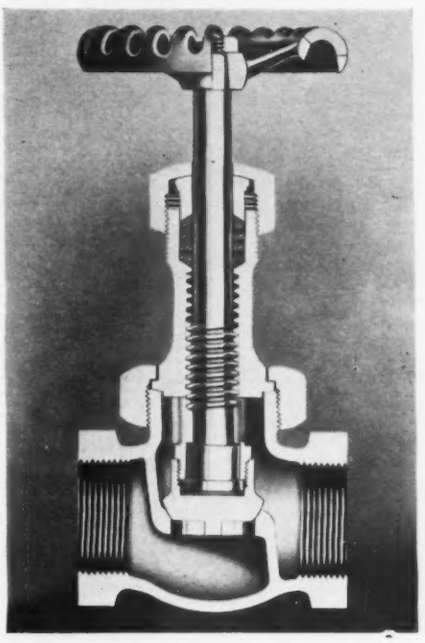
The propeller shaft is in two parts, the upper part being of extra-heavy stainless steel and having a socket into which the lower part, of monel metal, is locked. The advantage of this is a cheaper cost of replacing the propeller shafts and propellers. The propeller shaft can be replaced without the necessity of dismantling the complete head. The locking device is accessible through the hand holes of the main housing.

Petcocks are provided for showing the lower and upper level of the gear lubricant, and for draining the gear lubricant. Provisions are also made for filling the gear box with lubricant. In the lower part of the housing there is provided a drain to draw off any liquid which is formed through condensation and collects in the bottom part of the housing.

The gears, main drive shaft, and upper half of the propeller shaft can readily be dismantled without removing the housing. All that is required is to remove the top half or cap of the housing, which gives easy access to all working parts.

The coefficient of friction in the new head is low, not only because of the efficient lubrication system and the use of ball bearings, but also to the fact that all parts are well balanced. The horsepower required is only one-half of that required for the old model. Where a 5-hp. motor was formerly used, a 3-hp. motor is now sufficient; and where a 3-hp. motor was needed, a 1½-hp. motor is sufficient.

Type M Head for Circulating Dyeing Machines



Globe Valve, Representative of New Line of Globe, Angle and Check Valves with Hard-Metal Bodies and Disks

Globe and Check Valves

Brass Types for 300 lb. Steam Working Pressure

A new line of brass screwed-end globe, angle, and check valves for 300 lb. steam working pressure where the total temperature does not exceed 600° F. has been brought out by the Crane Co., 836 South Michigan Ave., Chicago. The valves are claimed to be unusually rugged in construction. Union-bonnet construction renders them suitable for severe service conditions where regrinding and replacement of parts must be done quickly.

Stems, packing nuts, bonnets, and union bonnet rings are made of forged brass. The body and disk are cast of Crane hard metal, a fine brass alloy. Disks are of the swivel type. The malleable iron non-heat handwheel is held tightly to the stem by a brass wheel nut. All valves are equipped with deep stuffing boxes and are fitted with brass glands. They can be repacked when the valve is wide open and under pressure.

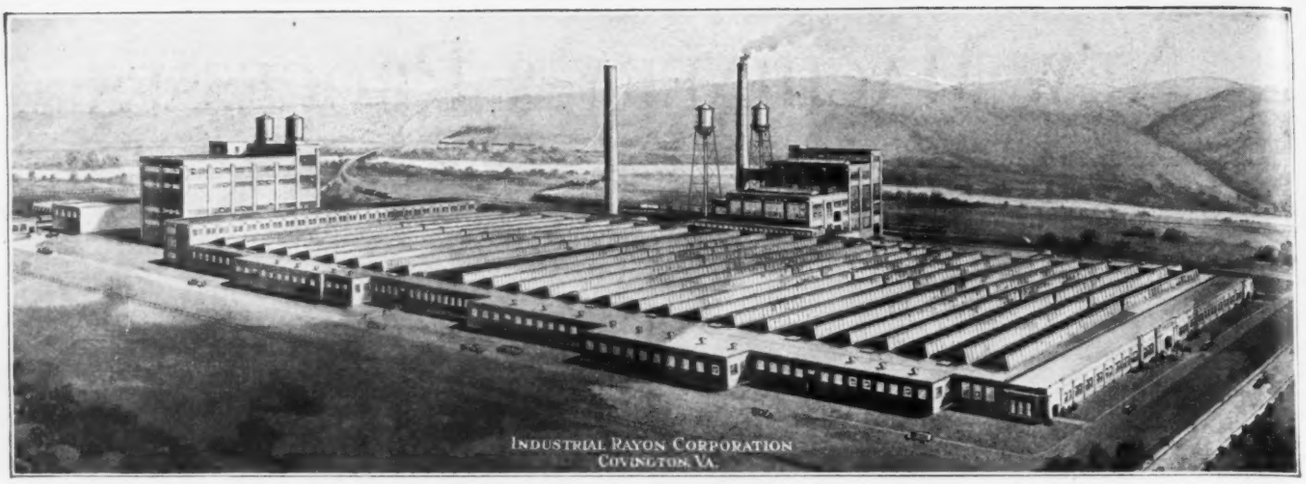
The check valves are made similiar to the globe valves and are equipped with dashpots in the upper part of the body. The cap and disk construction permits the insertion of a spring to keep the valve normally closed when used on gas or air.

Dust-Tight Cover Guard

Protects Lighting-Equipment Cover from Breakage

A new wire guard to protect the glass disc of Benjamin dust-tight covers against damage and breakage is now in production at the Benjamin Electric Mfg. Co. plant at Des Plaines, Ill., it is announced. The guard is made of heavy-gauged steel wire, heavily tinned to prevent corrosion, with each joint securely welded. Attachment of the guard to the dust-tight cover may be done quickly and easily. The spring clamp on the retaining band of the dust-tight cover is released and the four steel lugs welded to the guard rim are inserted under the band. The spring clamp is then snapped into closed posi-

Guard and Dust-Tight Cover Attached to an RLM Dome Reflector



The Industrial Rayon Corporation, Covington, Kentucky

The roof of this great textile mill has an unusually large area of 130,000 square feet. Here 530,000 square feet of Celotex Roof Insulation Board were used to insulate this tremendous surface. Ceiling condensation is prevented, fuel losses are stopped and productive working temperatures can be maintained the year round. J. E. Sirrine & Company, Greenville, South Carolina, Architects and Engineers. J. A. Piper Roofing Company, Roofing Contractors.

STOP CEILING CONDENSATION . . .
Prevent damage to fabrics and machinery

TEXTILE mills end these serious losses with cane-fibre insulation . . . quickly and easily applied to the roofs of new or old buildings.

CEILING condensation with its costly damage to fabrics and equipment was once a serious problem in every textile mill.

But today there is a quick and easy solution in Celotex—the only cane-fibre roof insulation. Mill owners everywhere are insulating the roofs of old buildings . . . bringing them up to date with this remarkable material. For cane-fibre insulation with its low thermal conductivity eliminates rapid temperature changes . . . prevents the cold ceilings that cause condensation.

Besides, you can keep your plant at the most productive working temperatures the year 'round . . . maintain conditions that increase output per labor hour.

Your heating engineers will tell you that you make sure of considerable fuel economies through the cold months by stopping the heat leaks in your roofs with cane-fibre insulation. In hundreds of mills it has proved a highly profitable investment . . . paid steady and worthwhile dividends.

Celotex Roof Insulation Board is a product designed especially to meet the needs of the textile industry. Architects and engineers have proved that it answers every practical requirement . . . specify it because of its high efficiency and low cost of application.

It comes in boards measuring 2 ft. by 5 ft. with a thickness of approximately ½ in. . . . and laminated in multiples of from 2 to 8 plies.

These boards can be laid right over your old built-up roof covering and covered with a new roof. On new buildings they are quickly applied over wood, concrete or metal roof decks under any type of built-up roof covering.

Write us for the latest facts on figures on the value of Celotex insulated roofs in textile mills as proved by actual experience. Our engineers will gladly cooperate in solving your own particular problems.

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tion and the guard is held firmly in place.

Combinations of the Benjamin dust-tight cover and wire guard, when applied to Benjamin one-pieces reflector-socket units, meet the requirements of the National Electrical Code for dust-hazardous locations. The illustration shows the guard and dust-tight cover attached to a Benjamin RLM dome reflector.

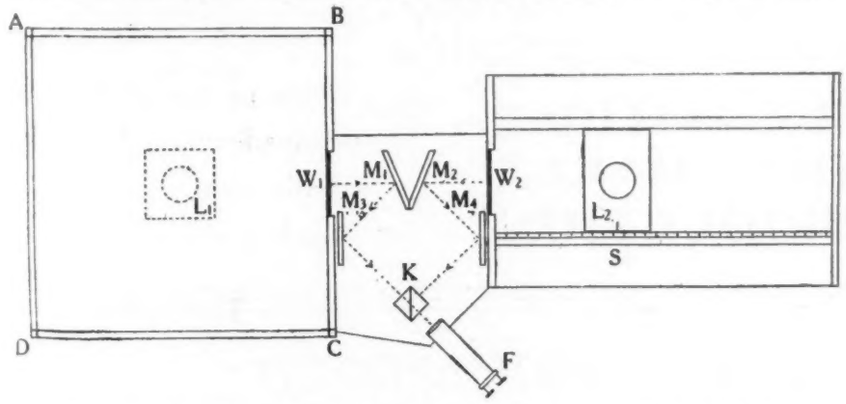
Measures Fabric Whiteness

Cube Photometer Employed to Study Results of Bleaching

How the cube photometer—an instrument frequently used for measuring the amount of light emitted by a lamp—can be used for determining the whiteness of a fabric is described by Albert Adderley in the *Journal of the Textile Institute*. The results can be stated definitely in figures and it is believed the method will prove of use in controlling bleaching operations. The fabric is studied by putting it in place of one or more of the internal faces of the cube, and therefore the instrument measures the whitness of the fabric compared with the paint of the cube. The paint used is one recommended for photometrical work by the U. S. Bureau of Standards in Scientific Paper No. 447. This paint is whiter than any fabric which has as yet been studied.

A plan view of the instrument used is shown in the accompanying diagram. "It consists," writes Mr. Adderley, "of a hollow cube *ABCD*, the inside measurement of which is 14 in. The face *BC* is fitted with a depolished opal window W_1, 2 in. square and flush with the inside of the cube. The top of the cube is bored centrally with a circular hole, and above this is fitted a lamp-house containing a 12-volt gas-filled lamp L_1. The light from the lamp casts a circle of illumination on the bottom face of the cube, and no light from the lamp falls directly upon any other part of the interior. The three faces *AB*, *CD* and *DA* are detachable and may be replaced by three similar faces covered with the fabric under test. The photometric arrangements consist of a Lummer-Brodhun contrast type photometric prism *K* and the mirrors M_1, M_2, M_3, M_4. An opal window similar to W_1 is fitted with W_3, and is illuminated by a lamp L_3, similar to L_1 and in series with it on a 24-volt accumulator circuit. The lamp L_2 moves over a scale *S*, which indicates the distance of the lamp filament from the window W_3. The mirrors M_1-M_4 and the prism *K* enable the brightness of the window W_1 to be compared with that of W_2. The brightness of W_3 is known from the measurement of the distance of the lamp L_2, hence the brightness of the window W_1 can be found. At *F* a slot is provided for holding color filters in front of the eye.

In order to form a basis from which all future work can be conducted, the six painted sides of the cube are first put in place and lamp L_2 is moved until the illumination of window W_3 equals that of W_1. If one of the painted sides is now replaced by a side covered with fabric, a new setting of lamp L_2 is necessary. A comparison of the two positions of the lamp L_2 gives a key to the difference in reflecting ability between the fabric and the standard paint. The quantity of color in so-called white fabrics—which must be considered as well as reflection in measuring whiteness—may be determined by noting the effect of color filters in the eyepiece on the readings of the photometer. Provision is also made for including the factor of brightness.



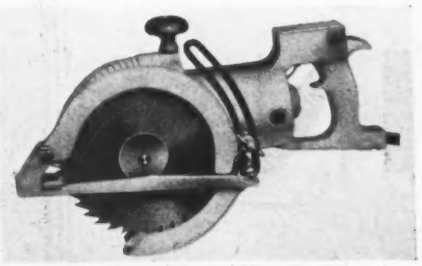
Plan View of a Photometer for Measuring the Whiteness of Bleached Fabric

Electric Handsaw

Compact, Portable, Light-Weight Junior Model

The Wodack Electric Tool Corp., 4627 West Huron St., Chicago, has recently placed on the market a light-weight (15 lb.), compact, one-hand electric saw for cutting any board up to 2⅝ in. A sawdust blower is included in the construction for providing perfect vision.

Other features include a convenient trigger switch, a momentary contact, a rip gauge to save marking the board to be sawed, and a depth gauge which is easily adjusted by one wing nut. Accessories include a 15-ft. extension cord, a 1-lb. can of Wodack lubricant, a grease gun, a steel carrying case, an adjustable depth gauge, and a rip gauge. The new saw is called the "Junior Model K."



Portable Electric Hand-Saw

RECENT TEXTILE PATENTS

BLEACHING of fabrics in an open state, Machine for. 1,729,021. C. Taylor, Kearsley, Manchester, England.

CONDENSER for cotton gins. 1,729,282. E. Corbin, Sentinel, Okla.

COTTON cleaner. 1,729,503. C. S. Cox, Fresno, Calif. Assigned one-half to H. E. Walrond, Fresno, Calif.

HOSIERY. 1,728,924. M. Buchsbaum, Brooklyn, N. Y.

HUMIDIFYING system. 1,729,074. A. F. Karlson, No. Leominster, Mass. Assigned to Parks-Cramer Co., Boston, Mass.

LOOM stop motion, Needle. 1,729,570. E. A. Cunniff, Thompsonville, Conn. Assigned to Bigelow-Hartford Carpet Co., Thompsonville, Conn.

LOOMS, Let-off for. 1,729,130. W. I. Seymour, West Barrington, and L. J. Shanahan, Providence, R. I. Assigned to Franklin Machine Co., Providence, R. I.

LOOMS, Warp-stopping mechanism for. 1,729,592. I. W. Noyes, Hopedale, Mass. Assigned to Draper Corp., Hopedale, Mass.

SHUTTLE. 1,729,413. F. E. Ashton, Chester, Pa. Assigned to Aberfoyle Mfg. Co., Chester, Pa.

SHUTTLE. 1,729,524. A. M. Sergeson, Roslyn, Pa.

SPOOLS, Manufacturing yarn. 1,729,267. E. F. Hathaway, Wellesley, Mass. Assigned to Shawmut Engineering Co., Boston, Mass.

TENSION device for shuttles. 1,729,551. J. Rush, Norwich, Conn. Assigned to The Schwarzenbach - Huber Co., Union City, N. J.

THREAD dressing machine. 1,729,272. J. P. King, Providence, R. I. Assigned to Walling & Walling, Providence, R. I.

TWISTING machine. 1,728,663. W. W. Collins, North Seekonk, Mass.

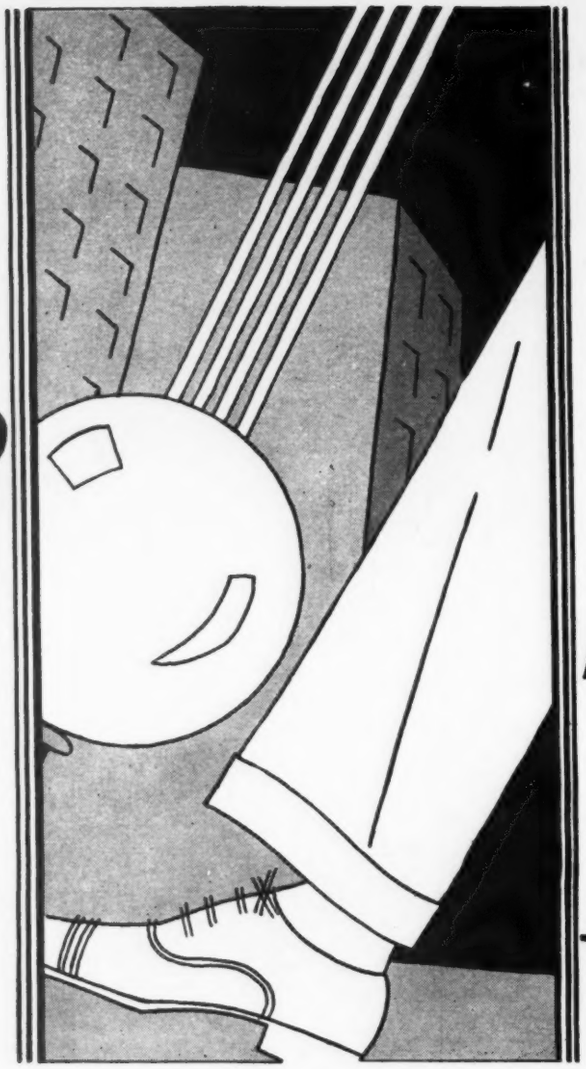
WASHING, bleaching, and like machine. 1,728,767. J. Lever and H. Hill, Bolton, England. Assigned to Dobson & Barlow, Ltd., Bolton, England.

WEAVING machine. 1,728,497. H. R. Lownsberry, Elmira, N. Y.

WINDING bobbins or the like, Reciprocating guide motions for directing yarn or other material to. 1,728,448. F. W. Schubert, Apperley Bridge, England. Assigned to Brysilka, Ltd., Apperley Bridge, England.

WINDING machine. 1,728,413. C. H. Jones, Providence, and E. R. Swanson, Cranston, R. I. Assigned to Universal Winding Co., Boston, Mass.

IN STEP WITH THE TIMES



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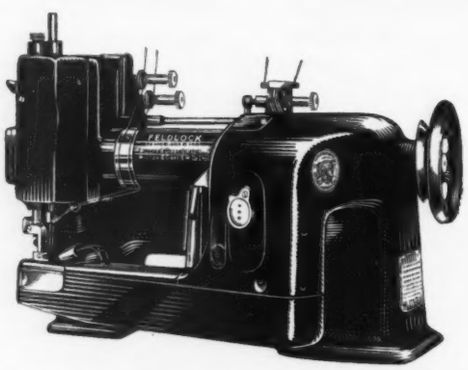
The perfected feed-off-the-arm principle of this fine Willcox & Gibbs Machine enables operators to work quickly. The results . . . seaming costs are lowered, and larger earnings naturally result.



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The better needle for better work—genuine W & G Needles.

QUESTIONS AND ANSWERS

Service on Mill Problems and Correspondence with Readers

Spot-Proofing Woolens

Technical Editor:

I would like to get all the information I can on the latest machine or process for spot-proofing kersey finish auto cloth, without taking away the luster. I understand there are mills today that are discarding the London shrinking process and using decating and semi-decating, which leaves the goods ready for the needle. (6951)

Few machines have been put on the market to spot-proof woolen fabrics. The process is slow and not always successful, it being necessary in some cases to subject the goods to three and even four treatments of wetting-out and drying to obtain results. By this process most of the press luster is removed, but a luster can be restored which is more acceptable to the clothiers by adopting subsequent processes which will be referred to.

The second part of the inquiry refers to the London shrinking process. This is a very old process which is used abroad quite extensively and in some of our American plants. Without going into details, it consists of first plaiting down the fabric with interposed layers of cotton cloth, submerging the entire body in water until it is well saturated, and then removing it from the tank. The fabric is festooned and dried to a large extent. Taken down from festooning it is placed between press papers and subjected to a heat pressing for several hours. After the first pressing, the fabric is removed from the press and replaited so that the fold or crease outside of the press paper is placed under the press paper for a second pressing.

This is an expensive process and does not always produce uniform shrinkage of the goods, certainly not a shrinkage that is acceptable to the best custom and commercial tailors. Some years ago, many plants that followed this method discarded it in part and introduced the so-called decating process. By this method the fabric is subjected to a steaming in a closed steamer after being wound with a wrapper or cloth interposed between each winding. This results generally in a very satisfactory feeling fabric. Frequently the clothiers subjected the fabric to a steam sponging on an open cylinder before the goods were cut up.

Later a machine was introduced which steamed the fabric when wound up on a special cylinder having tubes inserted in its periphery, the tubes pointing inward so as to prevent any water of condensation from coming to the fabric. A heavy wrapper or mantle was used and wound upon the cylinder with the fabric, so there were alternate layers of fabric and wrapper. The mantle was subjected to considerable tension, while the fabric was wound as loosely as possible to make a smooth, compact roll, devoid of wrinkles. This fabric with wrapper was then subjected to a steaming from the inside and, after being properly steamed, was subjected again to a process of air removing by means of a vacuum pump drawing the air from the outside through the fabric until the cloth was practically cold. The amount of steaming and the amount of vacuuming were determined by the class of fabric and also the character of the feel that was desired.

This process produces a mellow feel, a permanent luster, and a reasonable, but not complete, shrinkage of the fabric. The fabric was acceptable to the clothiers and is in most cases ready for the needle. A few fabrics were obliged to be water shrunk and this is an entirely different process requiring equipment quite distinct from the process used in the lustering of fabrics.

We note that the inquirer refers to a decating process, evidently referring to the process of closed or chamber steaming. He also refers to a semi-decating process, and this last evidently refers to a machine sold under the name of a semi-decating machine, which is used to some extent to obtain luster.

The machine which we have indicated as a steaming and vacuum-cooling process machine is used by most of the large clothiers and has been installed in many of the better equipped mills. It is a machine which has met with the approval of the clothing industry. By varying the amount of steaming and the amount of vacuuming, it seems to be adapted to practically all the different classes of fabrics.

* * *

Leno-Weave Elastic Fabric

Technical Editor:

We are enclosing a sample of elastic for your inspection. Will you please examine it and advise whether it is made on a loom or on some other type of machine. (6944)

This material was made on an ordinary narrow-fabric loom of probably 28 to 36 shuttles, and the type of interlacing by which it was woven is variously named leno, gauze, or doup weave. Usually there are but two different sets of warp ends, but in this instance there are three sets. The first set is the main warp, in this case the covered rubber threads of which there are 14, the 12 center ends working the same, one up and one down, and the two outside ends working counter to the center ends. The second set of ends is the top doup ends, of which there are 12. These ends not only interlace with the filling but also weave, after a manner, with the ground ends. By a peculiar arrangement at the harnesses, each of these ends is lowered first on one side of a ground end and then on the other side. While it is lowered a pick passes through the shed. The third set of ends is the bottom doup ends of which there are 12 also. These, too, are arranged in a special manner at the harnesses and are raised first on one side of the ground end, and then on the other side.

* * *

Scouring Rayon Shoddy

Technical Editor:

We have a customer who is interested in purchasing rayon shoddy. They are carpet manufacturers and are requesting us to give them the information on how to scour rayon. We do not know whether our customer wishes to run this rayon by itself in the yarn or mix with wool. We would appreciate your giving us this information about scouring same with wool, and also in straight rayon. (6948)

The rayon stock should have only enough oil to properly reduce it to its fibrous state. This oil should be one that scours out readily, such as a soluble oil or an emulsion. It need not be all saponifiable.

Regardless of whether the rayon yarn is spun by itself or mixed with wool, it should be scoured with as little handling as possible. The Klauder-Weldon type and the continuous yarn scouring type of machine are well suited for this purpose. The latter type machine will

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In this department, we undertake to answer, free of charge, to the best of our ability, questions pertaining to textile matters received from any regular subscriber to TEXTILE WORLD.

Inquiries should give the fullest information and data possible. In the case of damage to material, a sample should be sent. In this way answers can be given which will be of immediate technical value to the correspondent and to others in the same line. Inquiries pertaining to textile processes, machinery improvements, methods of management, the markets, etc., are especially invited as well as any legitimate discussion on the views expressed.

All inquiries must be accompanied by the name of the person inquiring, not for publication, but as an evidence of good faith. The identity of those seeking information on technical subjects will not be disclosed.

If the question is not of general interest to textile readers and involves expensive investigation, a charge covering the cost may be made, of which the inquirer will be advised before any expense is incurred.

Letters expressing opinions or voicing criticism will be signed by the correspondent's name unless the letter itself contains a request that the name be withheld.

For prompt service, technical inquiries should be sent directly to the Technical Editor, TEXTILE WORLD, 1427 Statler Bldg., Boston, Mass.

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PARAMOUNT
Textile Machinery Co.
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THE Board of Directors of Kenaf, Inc., Moscow, U.S.S.R. have opened a contest for the best method of preparing Kenaf (straw fibre-hibiscus cannabinus) for textile uses, to include design of machinery, and plans for installation of complete plant required for primary processes.

Designs for separate machines, installations and methods as well as plans, including machinery required for a complete plant to perform the primary processes, will be admitted to the contest.

1st Prize—for a complete set of plans for original machines or complete original method covering primary processes for the preparation of Kenaf—$25,000, or

For separate machines and installations

Two prizes of	$7,500 each
One prize of	5,000
One prize of	2,500
Two prizes of	1,250 each

Plans submitted for the contest will be judged by a special jury approved by the Board of Directors of the All-Union Textile Syndicate of Moscow, U.S.S.R.

Plans for the contest must be received on or before March 1, 1930, at the office of Kenaf, Inc., Moscow, U.S.S.R.

All plans must be enclosed in a sealed package, bearing the private mark of the contestant, and addressed to the Board of Directors of Kenaf, Inc., accompanied by another sealed envelope containing the private mark, name and address of the contestant.

Further information with reference to the contest may be obtained from the Board of Directors of Kenaf, Inc., Moscow, U.S.S.R. Nikolskaya 6. And also from

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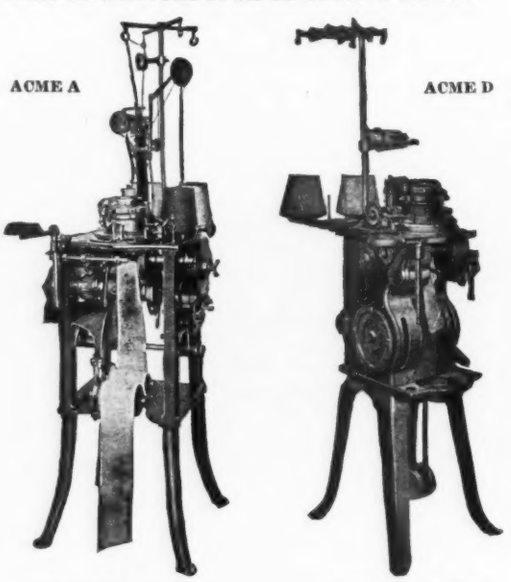

Revolving Cams **Revolving Needles**

Ask those who use them.

See also
CONSOLIDATED TEXTILE CATALOG

Acme Knitting Machine and Needle Co., Franklin, N. H.

scour a greater quantity in a given time, but the former has the advantage of being able to scour and dye without removal from the machine.

The amount of scouring agents it is necessary to use is somewhat dependent on the amount of oil, dirt, and other impurities present in the stock and the type of machine used. The nature of the oil used has an important bearing on this subject. Inasmuch as most of these stock lubricants contain some mineral oil, the formulas used in this answer are figured to take care of this type of stock. A slight excess of scouring agents will be recommended to insure a factor of safety.

For yarns composed of all-rayon in a Klauder-Weldon machine: With a machine of 200 to 250 lb. capacity, use about 400 gal. of water. If possible, the machine should have four holes or ports, cut about two inches high and four inches wide, at a place about two inches above the water line. Two holes are placed in the front of the machine and two in the rear. These ports provide a means of overflowing the machine and carrying off much of the impurities. This procedure will also cut down the rinsing time. The best scouring efficiency, and the least fiber destruction, is obtained at a temperature between 130 and 140° F.

If softness is essential, mild alkalies must be used. If softness is not essential, soda ash can be employed. For alkalies, the writer prefers mild alkalies such as Oakite, trisodium phosphate, Escolite, or Wonder Break. These products have powerful emulsifying properties, yet are extremely mild in their action on the fibers and do not make the rayon brittle.

Before entering the yarn, the alkali should be added, either by dissolving in the machine or in a separate tank. This will prevent the water from loosening up the oil and keep the oil from forming a scum on the sides of the machine. For yarn containing about 10% oil, we would use about 4% of one of the abovenamed alkalies, based on the dry weight of the yarn being processed.

After the alkali has been dissolved and the proper water level and temperature reached, from 3 to 4% of a previously dissolved good neutral soap is run into the machine. The yarn is then entered and scouring proceeds for one-half hour at a temperature of 130 to 140° F. If the lather dies down appreciably, a little more soap is added.

If there be much mineral oil present, the addition of a soluble pine oil or a cresylic acid soap will be of great assistance. These materials assist in maintaining a lather and also act as solvents to extract oil and dirt from the yarn.

When the half-hour is up, warm water (120° F.) is run into the machine and allowed to overflow through the four ports, for five minutes. This will float off most of the oily scum, which usually forms on the top of the bath.

When the yarn is to be left white, we recommend that only the soluble pine oil be used. Cresylic acid is liable to leave an odor in the white goods, which is killed if the goods be dyed.

Rayon and Wool Yarn

Where wool and rayon are scoured together, the temperature of the bath should not exceed 120° F. The same scouring materials are used and the amounts remain about the same. If the carpet wool has not been scoured clean, it is always safe to add a little more soap solution toward the end of the scouring to freshen up and to liven up the bath. It should always be done if there is any tendency for the suds to die down.

With the continuous type of scouring machine, of the four-bowl kind, the first bowl should contain about twice as much alkali as soap. This is fed in solution form as the bath becomes exhausted. The second bowl should contain equal amounts of soap and alkali. The rinsing is done in the last two bowls. The total amounts used in the continuous machine will run about 2 to 3% alkali, 3% soap, and 2% pine oil or cresylic acid.

When all-rayon yarns are scoured in the continuous type machine, the pressure on the squeeze rolls between the bowls should be even and not too heavily set. All-rayon yarn is a little tender when wet and should not be subjected to too much tension or pressure. Wool helps to carry through a wool and rayon mix.

* * *

Sizing Rayon on Cones

Technical Editor:

Will you kindly give a routine and the products used in the sizing of cotton yarn (12s/1-26s/1) in the wound form (cones, etc.)? In making the warps for sample pieces we intend to use already sized cones to eliminate the running through the slasher, which is in every way a very expensive and inconvenient process for the short sample warps. (6945)

There is little of this type of sizing done. It is difficult in cop or cheese sizing to secure even penetration so that the outer and inner layers will be evenly and uniformly sized. The cops are placed upon perforated metal spindles, which are so connected with a pump that it sucks the sizing material through the cop and returns it to the vat. No doubt any of the machinery concerns which make package dyeing machines would be able to give data on a suitable machine.

The following formula would be suitable:

Water	300 to 500 lb.
Gum tragasol	100 lb.

* * *

White Specks Due to Dead Fibers in Dyed Cotton Fabric

Technical Editor:

We are enclosing two samples of dyed cloth, and you will notice on each some very small specks which are practically white. We have no knowledge of the details concerning the dyeing of this cloth, which makes it probably more difficult for you to determine the cause of this defect. However, we would appreciate your opinion as to the probable cause. (6946)

We have examined the two samples of dyed cloth and find that the small white specks are due to the presence of dead cotton in the fabric. Dead cotton has little affinity for most dyestuffs and there is little that the dyer can do to remedy this fault. Mercerizing the cloth before dyeing sometimes makes a little improvement in the appearance of the dyed fabric. Heavy shades of direct colors are usually dyed on the jig, and it is probable that the samples submitted were so dyed. By dyeing about half up to shade on the jig and, after drying, complete the dyeing on a padder with heavy nip, it is possible to force some color on the dead cotton. This will give a somewhat better dyeing, but the specky appearance will not be wholly eliminated.

* * *

Unevenness in Knit Goods

Technical Editor:

We are enclosing a small sample of tubular knit goods which in dyeing developed unevenness. We attribute this defect to the manufacturing process, or uneven knitting; we also blame an uneven lubrication. The manufacturer claims, however, that our dyes are at fault. We are using trade dyes which are claimed to be the best for this type of work. Will you kindly let us have your expert opinion. Please state whether or not these pieces can be evened up. (6943)

The unevenness in the sample of knitted cloth may result from one or all of the following: uneven tension in knitting; different deniers in the same kind of rayon yarn; different kinds of rayon knitted in the same roll of cloth; uneven lubrication; or improper dyestuffs. If the unevenness were due to the dyestuffs, the color on the cloth could be removed by using a mild stripping agent or bleach, and recolored with the proper colors. This was tried, but the cloth still has the uneven effect so that it must be due to some of the other causes. It is a case of carefully checking each cause listed above, to find out which one or ones are causing you the trouble.

Georgia Legislature Passes Measures Affecting Textiles

Atlanta, Ga.—A resume of the legislation enacted by the 1929 session of the Georgia General Assembly shows that several measures effecting the textile industry of the state were passed.

Among the measures passed were: a general sales tax, placing a sales tax of half a mill on all merchandise produced by textile plants in the State passed both houses; a constitutional amendment allowing for an income tax of not to exceed 5%; and a measure which required the employers and the insurance companies to make certain reports to the Insurance Commissioner for the purpose of establishing rates.

MILL NEWS

COTTON

Dallas Mfg. Co. and **Merrimack Mfg. Co.**, Huntsville, Ala., have started night classes for teaching of mathematics, spinning and carding. The classes, which are well attended, are being taught by experts in these different lines of the textile industry, and it is said they will continue indefinitely.

***Pepperell Mfg. Co.**, Opelika, Ala. The new unit should be in full operation by Jan. 1, 1930, according to recent reports from the company.

Foster Spinning Co., Laurel Lake Mills, Lincoln Mfg. Co., Sagamore Mfg. Co., and **Border City Mfg. Co.**, all of Fall River, Mass., have petitioned for abatement of 1928 taxes. These mills, with others, have abatements pending before the Superior Court on 1927 taxes, on which hearings are yet to be heard.

Dwight Mfg. Co., branch mill at Newburyport, Mass., is reported to have been sold to Firestone Tire & Rubber Co.

Utica (N. Y.) Steam & Mohawk Valley Cotton Mills have taken on many new spinners because of increased volume of orders.

Yarborough Mills, Inc., Durham, N. C., which went into bankruptcy some time ago will be sold at public auction at the demand of creditors, Oct. 12, according to an order signed last week by Judge Cramner of the State Superior Court. The order was presented by the **duPont Rayon Co.**, and **Diamond Cotton Mills.** The Yarborough mills are owned by local people and for several years operated at a profit, but met with financial reverses about a year ago.

Arrow Mills, Inc., Lincolnton, N. C., equipped with 12,150 ring spindles and 6,000 twister spindles for the production of combed yarns, have been purchased by A. B. Carter and associates, of Gastonia, N. C. The new owners took charge of the mill Sept. 23 and have announced that the new company will be known as **Carter Mills, Inc.**, with main offices at Gastonia, N. C., and branch sales office at 44 Franklin St., Providence, R. I.

Clinchfield Mfg. Co. and **Marion (N. C.) Mfg. Co.**, have announced a 5% increase in wages of mill employes, effective at once. Both plants are running to capacity.

Quaker Mills, Philadelphia, Pa. Liquidation sale of machinery and equipment of these mills, manufacturing bed spreads and textile fabrics, Wayne Ave. and Berkley St., was held on the premises, Sept. 30. The company had approximately 100 looms, both plain and jacquard.

Aragon-Baldwin Cotton Mills, Inc., Chester, S. C., and Whitmire, S. C., plants, which curtailed the week of Sept. 23, resumed operations the morning of Sept. 30.

Springstein Mills, Chester, S. C., are reported considering changing looms from gingham to sheeting. A. H. Robbins, general manager, is in Providence, R. I., this week, it is reported, inspecting machinery.

Riverdale Mills, Enoree, S. C., and the **Virginia Mfg. Co.**, Fork Shoals, near Fountain Inn, S. C., were closed Sept. 27 and could not be operated for several days because of high waters. Heavy rains in South Carolina last week seriously interfered with industry and transportation.

***Laurens (S. C.) Cotton Mills** have awarded contract through the Spartanburg office of Lockwood Greene Engineers, Inc., to the Gallivan Construction Co., Greenville, S. C., to erect a $50,000 addition to the mill at Laurens, the contract calling for a four-story and basement structure as a wing to the present building. The addition will contain about 25,000 sq.ft. of floor space and, upon its completion, it is said, the department given over to spooling, warping, winding, slashing and drawing may be enlarged.

Cutter Mfg. Co., Rock Hill, S. C., manufacturer of denims, closed on Sept. 28 for an indefinite period, as announced by the manager, Douglas Tompkins.

Goodyear Cotton Co., St. Hyacinthe, Que., which was incorporated in 1926, proposes issuing $2,000,000 in 6%, 20-year sinking fund gold bonds to replace the old issue which has been called for redemption for cash on Oct. 1. The bonds will be secured by a mortgage on all real property of the company and a first floating charge on all the other assets and further secured by a sales contract with the Goodyear Tire & Rubber Co. of Canada, Ltd., agreeing to purchase the entire output of the cotton company.

WOOL

Stone Mill Co., West Medway, Mass. Work has been started on an addition, 70x36 ft., which will be used for a picker house.

Mohawk Carpet Mills, Amsterdam, N. Y. Construction work is progressing rapidly on the new addition to the Shuttleworth plant which will provide about 100,000 sq.ft. of additional manufacturing space.

Albany (N. Y.) Woolen Mills, Rensselaer, N. Y., are again running with night shift because of increased business demands.

Belmont Woolen Yarn Mills, Woonsocket, R. I., have awarded a general contract to the Pelletier Construction Co., Woonsocket, for a one-story brick addition to mill on East Mill St., 50x100 ft., reported to cost about $21,000 with equipment. Oscar H. Drouin, Woonsocket, is architect.

National Woolen Mills, Kirkland, Wash., representing an investment of close to $750,000, started operation Oct. 1. The mills manufacture blankets, flannels and men's and women's woolen top coatings and suitings. Walter Scott, formerly of the Matson Mills, will be designer.

KNIT

Wayne Knitting Mills, Fort Wayne, Ind., have awarded a contract to Max Irmscher & Sons, First National Bank Bldg., Fort Wayne, for interior alterations and improvements in mill, including installation of water-softening plant, estimated to cost about $13,000. Lockwood Greene Engineers, Inc., 400 North Michigan Ave., Chicago, Ill., is engineer.

***Revere Knitting Mills, Inc.**, Malden, Mass., have awarded contract to Frank A. Greenlay, 18 Spring St., Malden, for a factory addition.

Laurel, Miss. J. W. Goldman and D. R. Williams are projecting plans for a local hosiery mill, and under the auspices of the Laurel Chamber of Commerce, are organizing a company to carry out the project. Financing has been arranged and it is proposed to have plans completed at an early date.

New Hampshire Mills, Inc., Manchester, N. H., which have been operating in the Langdon mill of the Amoskeag Mfg. Co., have taken new quarters in the No. 12 weave-shed of the Amoskeag Co. Increased business made the Langdon quarters inadequate. No. 12 weave-shed has 30,000 sq.ft. of floor space and new machinery will be purchased. It is planned to increase the payroll from 100 to 250 employes.

Merit Hosiery Co., Inc., Ozone Park, L. I., will enlarge the capacity of its plant by installing a number of H.S.L. full-fashioned hosiery machines.

Fuld & Hatch Knitting Co., Cohoes, N. Y., is operating at capacity while new workers are being added in virtually all departments.

***Nebel Knitting Co.**, Charlotte, N. C., has awarded contract for addition to the plant to Southeastern Construction Co., Charlotte, N. C. It is expected to be finished sometime in December and production will start along in February or March. The new building will house the dye house, finishing room and offices of the company, which will be located at the corner of Camden Road and West Worthington Ave. There will be 22 fine-gauge Reading full-fashioned knitting machines installed.

Lock-Knit Hosiery Mills Co., High Point, N. C., is now operating 230 Scott & Williams knitting machines making men's fancy half hose. The plant uses rayon and cotton combed yarns.

Davidson Hosiery Mill, Lexington, N. C., has been operating day and night manufacturing knitted sport hose. The knitting department equipment includes 14 Banner jacquard machines, Paramount forms, 6 Wright Steady Dial loopers and 3 Merrow Machine Co.'s seamers.

Morgantown (N. C.) Full Fashioned Hosiery Co., will add another unit to its plant. A number of type H.S.L. Theodor Lieberknecht full-fashioned hosiery machine have been ordered from Alfred Hofmann, Inc., West New York, N. J.

Modern Hosiery Co., Philadelphia, Pa., will be located at A and Courtland Sts., where 45-gauge full-fashioned ma-

*Indicates previous mention of project.

chines will be installed. It is reported the building and initial equipment will cost $250,000, the first units of which are expected to be in operation by the first of the year.

S. & S. Hosiery Co., Philadelphia, Pa., has awarded general contract to William F. Lotz, Oxford Bank Bldg., for a one-story brick, concrete and steel addition, 100x100 ft., with slag roof, steel sash and kalamein doors, estimated to cost about $45,000, with equipment. H. H. Kline, 709 Chestnut St., Philadelphia, is architect.

Tohickon Hosiery Co., Quakertown, Pa., has acquired a mill at Hackettstown, N. J., and will operate a branch plant at that location at an early date. With this new unit, and proposed addition to mill at Quakertown, for which bids have been asked, the working force will be increased to about 260 persons, or approximately 100 more than employed at the present time.

Davenport Hosiery Mills, Chattanooga, Tenn., have placed a contract with Mark K. Wilson Construction Co., of that city, for the addition to their full-fashioned plant at Eleventh & King Streets. Estimated cost of the addition, exclusive of machinery and equipment, will be $60,000, it is reported. The company recently installed a number of H.S.L. (Theodor Lieberknecht) full-fashioned hosiery machines and has placed order for additional machines with Alfred Hofmann, Inc.

***Cadet Knitting Co.,** Columbia, Tenn., new plant on the Bee Line highway expects to get under way about the middle of October. It has a floor space of 55,000 sq.ft. The building is two stories and is of brick and steel construction. The company has purchased a number of full-fashioned hosiery machines and part of the equipment is already in transit.

Rex Tex Hosiery Mills, Kingsport, Tenn., are operating 24 hours a day with a daily output of 5,000 pairs of socks. W. F. Hedges, president, stated the firm expects to add more machines very soon.

Olympia (Wash.) Knitting Mills, Inc. Construction of a new addition to the present plant will be started soon, according to an announcement by officials of the company. It is expected operations will be started in this new factory about Dec. 1, and according to present plans this will increase the volume approximately four times the present output.

Supersilk Hosiery, Ltd., London, Ont., Canada, will have a daily production of 5,000 pairs of hosiery when the installation of the full-fashioned hosiery machines now being installed is completed.

Julius Kayser & Co., Ltd., Sherbrooke, Que., Canada, are considering further addition to their plant, at a cost of $50,000. When the present $150,000 extension is completed, the number of employes will be raised from 800 to 1,000.

***Gotham Silk Hosiery Co.,** St. Hyacinthe, Que., Canada, has started construction of the new plant.

*Indicates previous mention of project.

SILK

Henry Doherty Silk Co., Clifton, N. J., has increased operations at its local mill for plain silks, and is now running a night shift, to be continued for an indefinite period.

Newton (N. J.) Silk Co., is said to be arranging for a night shift at its Riverside mill, to run from 4 p.m. to 1 a.m., and additions are being made to the working force, including weavers, warpers and auxiliary operatives.

Jefroy Silks, Inc., Paterson, N. J., are arranging to advance production on jacquards, and will run on an increased basis for some weeks to come.

Phillips Silk Works, Paterson, N. J., are arranging to increase capacity and are now adding to working force, including a number of weavers. It is planned to start a night shift within a short time.

Utica (N. Y.) Silk Co. has filed dissolution articles with the Secretary of State.

Southern Silk Mills, of Greensboro, N. C., have let contract to J. L. Crouse, for the erection of a new weaving plant at Kernersville, N. C., to cost $150,000 with equipment. Construction has been begun and will be completed in 90 days. The building is to be one story, 72x177 ft., of brick and steel construction, and is to be dead-ended to provide easy addition in the future. One hundred looms are to be installed for broad silk and crepe-de-chine manufacture in the first unit. About 100 persons will be employed.

R. K. Laros Silk Co., Bethlehem, Pa., is installing equipment in the addition to its plant and will engage from 400 to 500 additional employes.

Superior Silk Mills, Inc., Prescott, Ont., Canada, capitalization $25,000, have been granted charter for a plant. Machinery is being installed and production will soon start. Jasper J. Stanyon, Robert Russell and Albert D. Heilner, who are interested in the Superior Silk Mills in Gloversville, N. Y., are the incorporators.

RAYON

Du Pont Rayon Co., Old Hickory, Tenn., has awarded contract to the Minter Homes Corp., of Huntington, W. Va., to erect 96 dwellings for employes. Work will start at once.

Canadian Celanese, Ltd., Drummondville, Que., Canada, which now has 280 looms in operation, will soon add to the number.

DYE, BLEACH & FINISH

Slater Co., Inc., Webster, Mass., has awarded contract to Fiske-Carter Co. for construction of a brick building 126 x 130 ft., which will increase the engraving capacity by 100%. The building is expected to be ready early in January, 1930. Four additional printing machines are to be installed at once and four more at a later date.

Apex Piece Dyeing Co., Paterson, N. J., has asked bids on general contract for a two-story addition on Crosby Ave., to be equipped as a dye house, estimated to cost about $40,000, with machinery. J. C. Van Vlandren, 140 Market St., Paterson, is architect.

United Piece Dye Works, Paterson, N. J., are planning the early rebuilding of portion of mill on Van Houten St., destroyed by fire, Sept. 25, with loss reported in excess of $100,000, including equipment and stock.

Enterprise Dye Works, Inc., Woonsocket, R. I., have filed plans for a one-story addition to dye house on First Ave., 20 x 70 ft., for which building contract recently was let to J. F. Fleurant & Sons, Inc., Woonsocket.

Woonsocket (R. I.) Dyeing & Bleaching Co. has awarded a contract to J. F. Fleurant & Sons, Inc., Woonsocket, for a one-story addition on Allen St., 55 x 130 ft., reported to cost about $25,000, with equipment. A building permit has been issued.

***Fairforest Finishing Co.,** Spartanburg, S. C. Construction work on the main building is almost completed, according to official announcement. Fiske-Carter Construction Co. has charge of the building operations, both for the plant and mill village. Lockwood Greene Engineers, Inc., are in charge. Bleachery's dimensions are 393 x 240 ft., one story with basement. The plant will be ready for operations about the first of the year. Officers of the Fairforest Finishin Co. are: M. R. Reeves, president; H. Arthur Ligon, treasurer, and Charles M. Lindsay, secretary.

***Rock Hill (S. C.) Printing & Finishing Co.** The main building is now completed and many carloads of machinery are ready for installation. The 16-inch and 20-inch water main has been laid to the filtration plant and the 200,000 gallon elevated storage tank and the 500,000 gallon storage reservoir at the plant are practically completed.

MISCELLANEOUS

Asbestos Mfg. Co., Huntington, Ind., is completing the erection of a one-story addition to mill and will occupy at an early date. Increased capacity will be developed.

Southern Fabric Mills, Inc., High Point, N. C., have moved all of their equipment to the **Southern Webbing Mills, Inc.,** Greensboro, N. C.

Keystone Braid Co., Reading, Pa., recently organized with capital of 60 shares of stock, no par value, to operate a local mill for the manufacture of narrow fabrics of wool and cotton, will be represented by Rudolph A. Heisler, 116 South Fifth St., Reading, who has been elected treasurer of company. Others interested include Charles H. Yeich, 934 Franklin St., Wyomissing, Pa., and Albert F. Mohr, 118 Park Rd., Wyomissing.

Samet Mattress Co., Rock Hill, S. C., has just opened a mattress factory.

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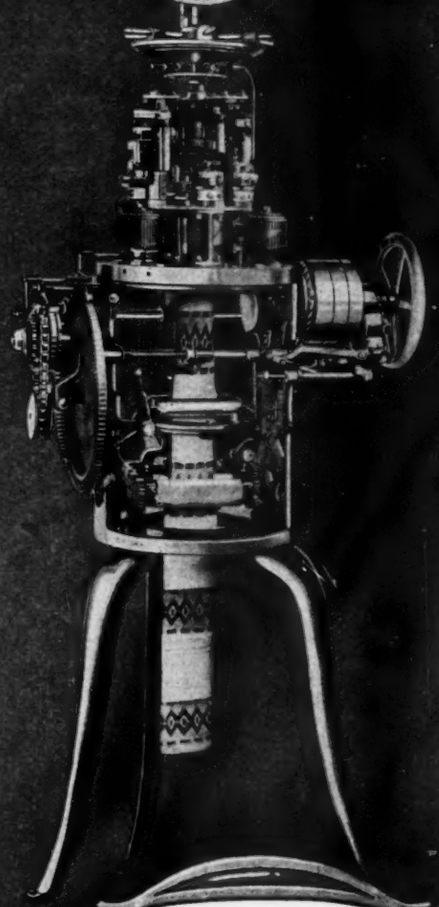

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TEXTILE WORLD ANALYST

Cotton More Sensitive to Bears than Bulls

Unlikely to Go Much Below 18c. Or Above 19½c., Says Dr. Haney

IT IS impossible to write definitely as to the probable future of cotton prices with the October Government crop estimates coming so soon and with the reports as to the progress of the crop during September so conflicting. Our impression is that the crop has changed little and is likely to be between 14.8 and 15 million bales.

Cotton prices during September have moved similarly to prices in the same month last year. They did not fall so low at the middle of the month nor rise so high at the end. The average for the month was about 18.85c. against 18.66c. a year ago, taking New York spot prices as the basis of comparison.

Hedge selling continues a depressing factor in futures and reflects accumulating supplies. Offsetting this seasonal factor is the existence of a good volume of scale buying on the part of the trade. At the present time, there appears to be every indication that the price can not fall much below 18c. nor rise much above 19½c.,—though, of course, much depends upon the crop.

It must be remembered that cotton prices are a little high in comparison with the general price level and in comparison with wool or silk. The fact that the general level of commodity prices is somewhat lower than a year ago should be borne in mind in forming an opinion as to the probable level of cotton values.

Bull Points

(1) **Crop Damage.** The general opinion seems to be that late rains added little to fruitage and did considerable damage in the East. The chances seem good that weevil activity may still be considerable and the possibility of early frosts is to be considered.

(2) **The smaller Texas crop.** Low Texas ginnings figures and reports on the condition in that State indicate that the crop there will be little, if any, over 4.1 million bales.

(3) **Reduced Indian estimates.** The crop in India will probably be considerably below last year.

(4) **Moderate stocks.** Stocks of both raw cotton and cotton textiles may in general be called moderate.

(5) **Fair yarn buying.** Some improvement in buying and in the strength of yarn markets is reported; September average price was above August and a year ago.

(6) **Fair seasonal gains in gray goods prices.**

(7) **The spot markets are fairly active,** with some broadening of buying (but this means hedge selling).

(8) **The market has stood up well under heavy hedge selling;** indicating a good volume of trade buying.

Bear Points

(1) **Increased production outside of the United States;** the carryover of foreign cotton was larger at the end of the season than a year ago.

(2) **Recent good weather.** September rains were on the whole beneficial, checking deterioration and slightly increasing the yield.

(3) **Manchester reports business dull** in spite of fair inquiries. Little if any improvement on the Continent.

(4) **Yarn business dull, with some shading of prices,** especially combed yarns. Yarn prices in September did not fully respond to the gain in raw cotton prices.

(5) **Spindle activity trend downward,** showing the smallest August increase since 1925.

(6) **The decline in automobile and tire production.**

(7) **Decline in unfilled orders for cotton textiles.**

(8) **General business recession.**

Our general impression is that the situation is in fairly good balance, but that the tendency of business in general to recede somewhat is likely to affect cotton unfavorably.

Statistical Position

The following statistics may be of interest at the present time as offering:

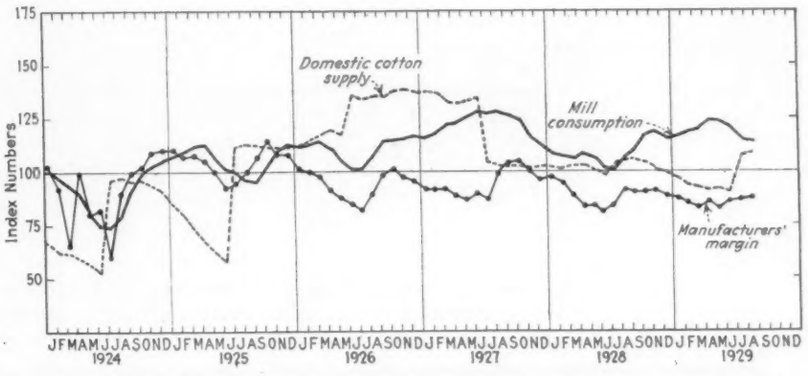


Fig. 1. GENERAL COTTON BAROMETER: Consumption—Average Daily, Adjusted for Seasonal Variation, three-month moving average; Manufacturers' Margin—Average of Replacement Margins; Average Monthly Available—Net Domestic Available for Crop Year Adjusted for Seasonal Variation. 1921-1926 =100 for all indexes.

SUMMARY—COTTON

Raw cotton supplies, while still uncertain, are ample, while mill consumption and exports are backward. The market is thus in a position to respond to bearish developments more readily than to bullish ones.

The analysis and forecast of Dr. Lewis H. Haney, Director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week.

The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

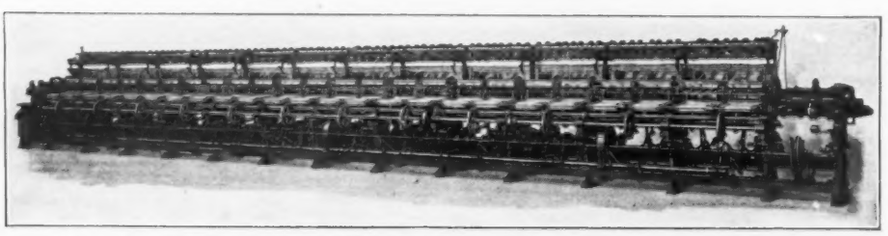
This is Headquarters for Complete Information

about the Full-Fashioned Hosiery Business

This is headquarters for every conceivable kind of information about the production of full-fashioned hosiery. All kinds of people come to us for facts concerning the industry. Manufacturers ask us about mechanical technicalities. Men thinking of engaging in the manufacture of hosiery question us as to locations, buildings, equipment, help, distribution channels, stability, the point of view of retailers and the kind of trade that should be sought.

You can get all this information—and more—right here, down to the last detail. It will be accurate, complete. The facts come out of twenty-five years of very close contact with every phase of the full-fashioned hosiery business—and the making of knitting-machinery accepted as the best obtainable. But it is not enough that we make the finest machines of their kind. The hosiery manufacturer needs, more than ever, exact and reliable knowledge of his industry—from every slant. Our aim is to furnish every fact he needs and we do. Write for full information about any question in your mind.

TEXTILE MACHINE WORKS—READING, PENNA.



A Reading 24 Section Legger. The full-fashioned knitting machine of 1929. Capable of producing the maximum number of "firsts" at the lowest possible operating and maintenance costs. Modernize your obsolete equipment with Readings.

See also CONSOLIDATED TEXTILE CATALOG

The "READING" Full-Fashioned Knitting Machine

comparisons of the September position in past years:

	Approx. Domestic Supply, Aug. 31 (Mil. Bales)	Ginnings to Sept. 16 (000 Bales)	September Average Price, (Cents)	Average Price for Season, (Cents)
1929-'30	16.4	3,353	18.85	...
1928-'29	16.1	2,500	18.65	19.7
1927-'28	15.6	3,504	21.93	20.3
1926-'27	20.4	2,509	17.01	15.1
1925-'26	16.9	4,282	23.79	20.5

It is apparent that in the years in which the supply has been similar to the probable supply for this season, the average price has been in the neighborhood of 20c. Last year, however, the average was a little under 20c., while the indicated supply this year is a little larger than last. The early ginnings have been larger than last year and well up to average.

Certainly there is no indication of an unusually small supply for the coming season.

The figures now available, however, have little value. The estimated crop would give a probable domestic supply for the entire season of upwards of 17.1 million bales. At present, it would be impossible to estimate the probable domestic consumption at much more than 7 million bales. At the current rate, exports would not amount to more than 6,000,000 bales. If we make an apparently liberal estimate of total domestic consumption and exports amounting to 14,000,000 bales, we would still have a probable carryover of upwards of 3,000,000 bales. We conclude merely that the supply promises to be ample and that there is no indication of a reduction in the carryover.

The season has begun with a probable world supply of American cotton of about 19.5 million bales, which is almost exactly the same as that for last year. There is thus no reason to look for an average price of *over* 19.7c.

Recent statistics do not look bullish. The into-sight movement has been about 500,000 bales larger than last year. The exports have been lower than in either of the last two years. World spinners' takings are also lower than in the last two years. World visible supply of American cotton is above a year ago.

Supply Ample; Consumption Less

From the first chart, it is obvious that the domestic mill consumption of cotton is pointed downward, while the supply available shows an increase. In this, the situation resembles the early part of the 1925-1926 season or the latter part of the 1927-1928 season. In both the earlier periods, the price of cotton declined.

Our index of average daily mill consumption, adjusted to eliminate seasonal conditions, stands at a fairly high level and is still above the average relation with the supply curve. The trend of consumption, however, is downward and seems likely to continue so.

Our estimate of the average monthly supply available for the balance of the season is moderate but ample, being above the average of recent years and above a year ago.

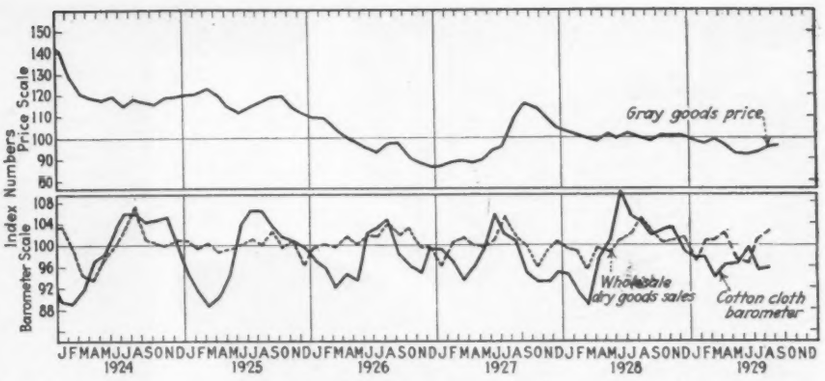


*Fig. 2. GRAY GOODS BAROMETER: Gray Goods Price—*TEXTILE WORLD *Index, 1921=100; Cotton Cloth Barometer—Based on relation between orders for and production of cloth; Wholesale Dry Goods Sales Barometer—Based on Wholesale Dry Goods Sales Index of Federal Reserve Board.*

Cotton manufacturers' replacement margins showed the usual seasonal gain in August, but were below a year ago and the lowest for the month since 1926. The margin curve is the lowest in comparison with the supply curve found at this season since 1926.

Demand Conditions Important

It seems that the cotton price level will be chiefly dependent upon demand conditions. Though the supply is ample, past experience would justify a price as high as 20c. as the average for the current season, but we have to consider these factors affecting the demand: (1) some general recession in business is under way; (2) the general level of commodity prices is gradually declining; (3) the trend of cotton mill consumption is downward and early indications are that the total consumption and exports for the season will be smaller than last year; (4) we find no favorable indications in the foreign cotton textile situation. It thus seems unlikely that there will be any sustained advance in cotton prices. It seems more likely that the market will rule considerably under 20c. and that further declines are probable before the end of the year, perhaps carrying below 18c.

Such observations frankly contain a large element of guess work, and are ventured merely in the hope that they will help clarify the minds of others. Of course, no allowance can be made for the possibilities of abnormal crop damage.

Scant Bullish Response in Yarn

Yarn prices averaged a little higher in September than in August, as is quite common for the season. It is fair to say, however, that the response to a higher cotton average and to the preceding period of curtailment in spindle activity, was disappointing. The gradual gain in orders for gray yardage during the first half of the year has brought relatively small advances in the yarn market.

Spinners' replacement margins appear about steady in September. They have been around the highest level of the last year and a half, but are not adequate for good profits and have shown less than the usual response to seasonal conditions.

Stocks of carded sales yarns decreased in August and were considerably under a year ago. This was due to a better balance between production and shipments, the latter reflecting some improvement in orders. It can be said, too, that unfilled orders were above a year ago. But, while recognizing a somewhat stronger position than existed last year, it remains true that unfilled orders, contrary to seasonal tendencies, have declined. Production increased rather sharply in August and the total spindle activity is still above its average relation with textile orders. Accordingly, it does not seem that yarn markets are in a position to rise independently of raw cotton.

As to cloth, we have to note a decline in unfilled orders for standard varieties and in cotton jobbers' sales during August. Barring bullish crop developments, our analysis of the available data suggests weaker gray goods markets before the end of the present month of October.

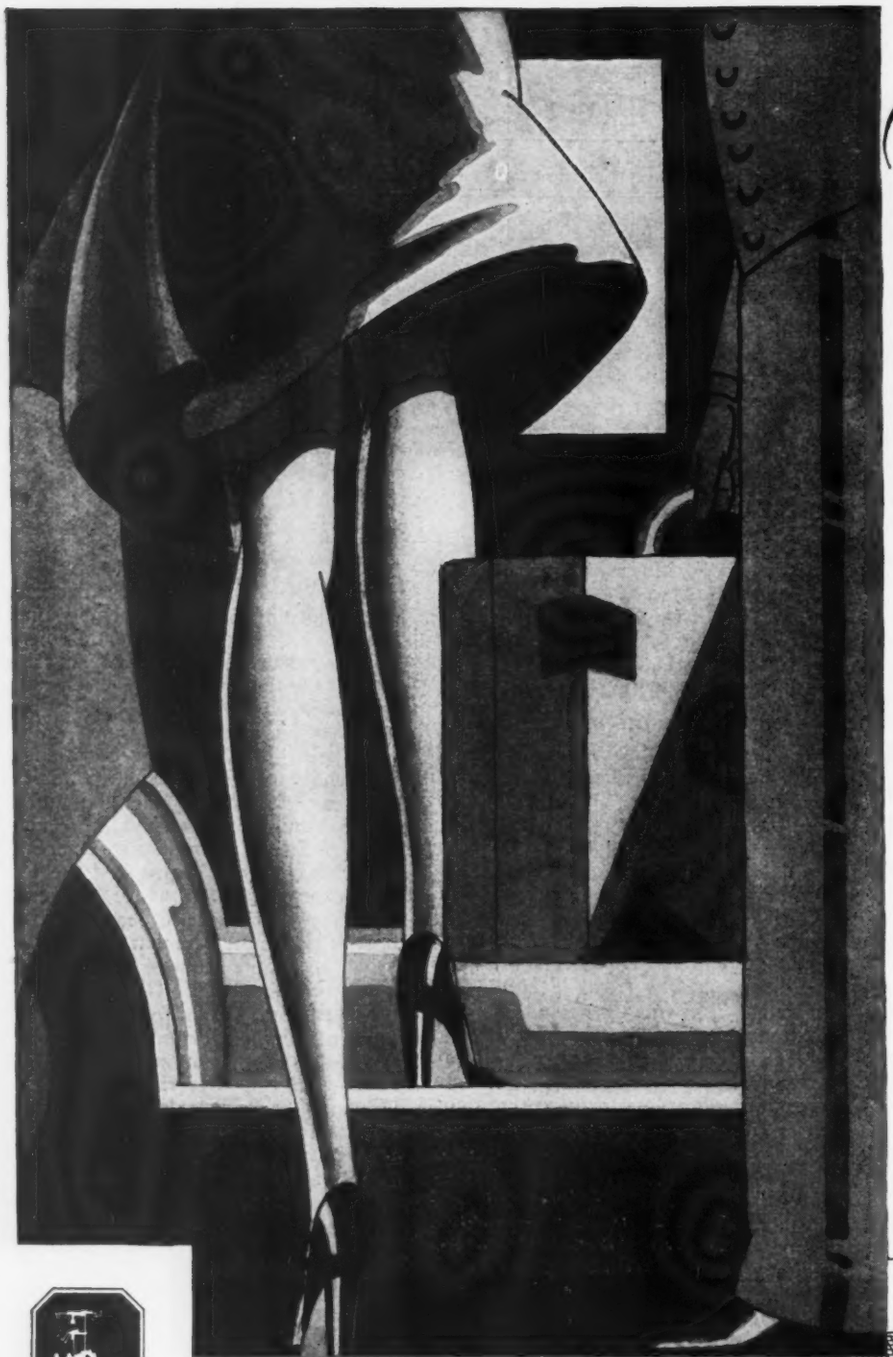
Ahmedabad Second to Bombay in Indian Cotton Manufacturing

WASHINGTON, D. C.—The city of Ahmedabad is second in importance to Bombay, as a cotton manufacturing center in India, according to a report recently received by the Department of Commerce, from Assistant Trade Commissioner, N. C. Bristow, at Bombay.

In 1925, the report says, it had about 62 mills, with approximately 1,328,056 spindles, and 29,383 looms.

This number has gradually increased and at present there are 76 mills, with 1,601,577 spindles and 37,948 looms, an increase of 14 mills, 263,521 spindles and 8,115 looms.

Before Bombay's mill troubles, local mills had to store up their products because of slack trade, but since the strikes in Bombay, however, local mills have not only sold their stocks, but many of them have effected forward sales at higher prices, working day and night to supply the demand.



Meet the demand for fine gauge Service Weight with MODEL K

The sheer bare leg stocking has developed a definite demand for a similar stocking in service weights. This can be produced on our Model K 300 and 320 needle machine—either plain or spiral.

Established 1865

SCOTT & WILLIAMS

Incorporated

366 Broadway, New York, N. Y.

KNIT GOODS

Bathing-suit Call Increases

Orders So Numerous Mills May be "Sold Up" Early

THE 1930 bathing-suit season is making remarkable strides. The active advance buying, which began to assume interesting proportions several weeks ago, continues without any sign of weakening, and knitters were both delighted and puzzled by the outlook. Mills are booking bathing-suit business at such a pace that some firms may find themselves "sold up" even before production has gotten well under way. Extravagant as this statement may seem, it certainly epitomizes the situation at the New York end. Of course, there are numerous firms, especially those doing a quality, high-price business, which are not flooded with orders; these latter mills report a healthy, but not sensational demand. Even with the quality group, however, the buying is well ahead of the season, and these firms expect some pressure in mid-winter and spring, if the current demand continues.

Women's Lines Lead

At the "volume" end, the current business is little short of phenomenal. Knitters had looked for a good 1930 season as a normal follow-up of the keen consumer interest registered during the past summer in the new sun-suit models. But the quantity of orders to date has admittedly taken them by surprise. The call is for both men's and women's, with emphasis on the latter. Style, as usual influences women in bathing-suit selection more than it does men, and buyers are placing their orders with this point in mind. The call is for all novelty designs in women's suits. As one knitter put it, "the gayer the colors, the better they sell." The whole range of brilliant color combinations is covered in current orders. Women's sun-back suits, to retail at $5 are one of the best sellers at present. Appliques are favored, though other types also are actively sought.

Jobbers and retailers are convinced that 1930 is going to be a record-breaking year in bathing-suit business. They are placing orders more confidently than ever, considering the time of year, and appear to be expecting difficulty later in the season.

Whatever, the next few weeks may hold, it seems reasonable that the most popular numbers at least may be sold out with certain mills before winter. Knitters who discussed this point, explained that they are having production trouble, due to the fact that sweaters and bathing suits are made on the same machines. The sweater business has been a "race-horse" proposition this season, and mills are still hard at it, producing enough to catch up with current sweater business. Therefore, the question of when bathing-suit production will start is a poser. Normally it should begin in a month or so, but continued pressure at the sweater end might keep the machines occupied with spot business for some time longer. There is little or no bathing-suit production at present; samples are being turned out, and also the normal production for southern and western trade; but the real 1930 output has not started. Meanwhile knitters continue to book next season's bathing-suit business in such volume that they may soon have the output covered for the coming season.

Underwear Heavies in Spirited Demand

Belated Buying Brings Last-Minute Rush—Shipments Fall Behind

Procrastination on the part of the jobbing and retail trade as regards stocking up on heavyweight underwear for the current season has resulted in a flood of spot business, and some of the larger "price" mills are experiencing difficulty in making shipments. Representatives interviewed this week said that the total of orders during recent weeks reached "impressive figures." However, this does not necessarily mean an exceptionally good season, as the heavyweight demand started late. At present, there is active movement all along the line, in winter ranges; both one and two-piece suits are in demand, with the former holding its usual lead. White and other staple shades are preferred in men's goods; the effort to popularize novelty designs, and gay pastel shades in these lines has been successful only to a very limited degree. Jobbers placed orders for both cotton and cotton-and-wool numbers. The $1.00 and $1.25 cottons were moving steadily, as were the $1.50 part-wool lines. In the higher-priced ranges, there was less activity, though buying was consistent all week.

The keen interest manifest in heavyweights has not materially helped spring goods. Knitters were of the belief that it was too early to look for real spring business. Orders for light and medium-weights were fairly numerous this week, but all were of the "feeler" variety. It is expected that retailers will begin active spring buying, once the heavyweights get well started in the consumer market.

Hosiery Market Grows More Active

Fancy Half-Hose Takes Spurt—Suntan Continues Favored Color Range in Full-fashioned

The week opened with more active interest in fancy half-hose, and women's full-fashioned. Both markets were steady, and no more than the usual underselling prevailed. Medium and high-price mills reported a firm situation, with both jobbers and retailers ready to pay list prices. Men's fancies, which were backward the beginning of September took on new life. There was a liberal sprinkling of spring business, and a fair spot volume. Encouraged by the new demand, producers of fancies were disposed to scout the talk of fancies giving way to staples for preference in public taste.

One important jober said this might be true, if the mills did not respond to the trend toward more conservative designs, but he was sure that there would always be a market for pleasing, quietly toned novelty half-hose. The same factor said his lively numbers, which are proportionately few, were almost totally ignored in current bookings. The call was chiefly for very modest mixtures, such as greens, browns, blues, in two or three shades. There was little change in the situation regarding men's staples. These lines showed their normal September strength, and were in steady demand.

Jobbers and retailers were in the market for full-fashioned numbers, especially in the darker suntan tones. Knitters are now convinced that suntan is destined to last well into the fall months. It is remarked that the preference is for shades somewhat duller than those of the midsummer. However, the suntan influence continues to register; it has been effective in delaying the usual fall call for gunmetal, dust and such sombre colors. A fair gunmetal business is noted, and one or two mills place these numbers among their best sellers. For the trade, as a whole, however, gunmetal is still in the preliminary stage this season.

Knitters were speculating on the possibility of suntan hosiery as a mid-winter proposition. The consensus of opinion seems to be that the muddy slushy weather of December will definitely turn women toward darker shades, despite the fashion approval of the flesh tints.

NO MORE OF THIS

The self-starter has eliminated the strong arm work of starting a motor.

And—the new Wildman Slow Motion Mechanism makes the operation of stopping and turning your Full-Fashioned Machine virtually automatic.

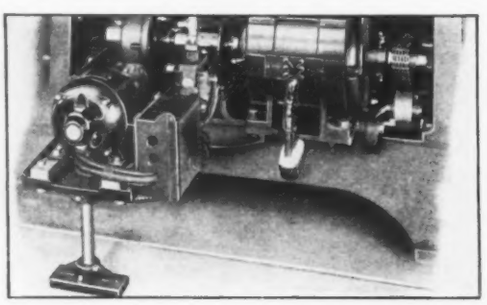
A touch of a lever does the trick.

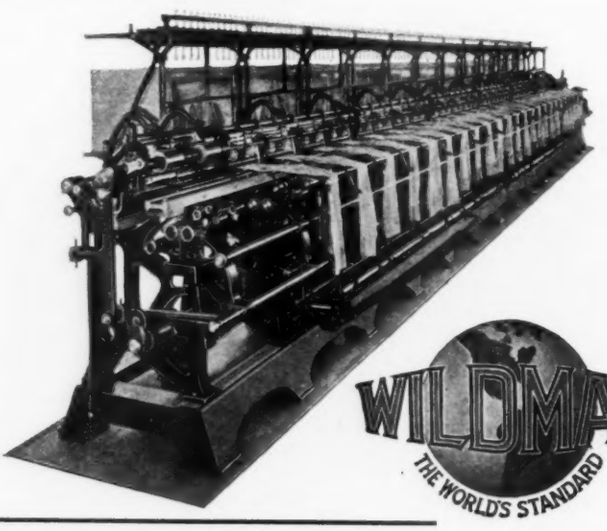
Is your car more up-to-date than your machinery?

WILDMAN MFG. CO.

Full-Fashioned Division

Norristown, Pa.





WILDMAN

THE WORLD'S STANDARD

WILDMAN

FULL-FASHIONED HOSIERY MACHINE

Form New F.-F. Hosiery Group

Thirty Full-Fashioned Mills in Association

PHILADELPHIA.

THIRTY manufacturers of full-fashioned hosiery operating union mills, who signed an agreement with the American Federation of Full Fashioned Hosiery Workers recently, have formed an association, the name of which has not yet been decided upon. The group was organized primarily for the purpose of dealing with future problems arising in mills employing union labor.

The formation of this association brings the total of trade associations in the hosiery field to four, these being the National Association of Hosiery & Underwear Manufacturers, the Hosiery Distributors Institute, the spiral knit hosiery group, being formed by manufacturers of seamless hosiery, and this group of full-fashioned hosiery manufacturers. An item about the seamless manufacturers' organization appears elsewhere on this page.

Names of members have been announced as follows: Atlas Silk Hosiery Co., Berkeley Silk Hosiery Co., Bower & Kaufmann, Brentmore Knitting Mills, Henry Brown & Sons Co., Wm. Brown Co., Co-Ed Hosiery Mills, Excellor Hosiery Mills, Fidelity Knitting Mills, Gotham Silk Hosiery Mills, Haines Hosiery Mills, Hancock Knitting Mills.

Laurel Silk Hosiery Co., Lincoln Hosiery Corp., McCallum Hosiery Co., Merit Hosiery Co., Minisac Mills, Nickels & Lauber, No-Mend Hosiery Mills, Opal Hosiery Mills, Rosanna Hosiery Mills, Trio Silk Hosiery Co., Van Raalte Co., Real Silk Hosiery Mills, Philadelphia, New Haven Silk Hosiery Co., United States Knitting Co., Modern Maid Hosiery Co., Siliko Hosiery Co., Oliver Hosiery Co., and Pohatcong Hosiery Co.

Names were announced by George Summerfield, chairman of the manufacturers' committee, and president of the Gotham Silk Hosiery Co., who was head of a group of manufacturers' representatives who attended a conference at the Union League. This committee consisted of Mr. Summerfield, William Drexel, McCallum Hosiery Co., Joseph Haines, Haines Hosiery Mills, Arthur Van Raalte and George Fichtner of the Van Raalte Co.

provision which will insure that all merchandise produced by members will measure up to the high production standards that will be set.

In addition to Mr. Galbraith, there were present at the meeting Secretary Walter L. Toy, vice-president and general manager of Scott & Williams, Inc.; F. Y. Kitzmiller, Kitzmiller Hosiery Co., Reading, Pa.; J. Harvey Wilson, Richmond Hosiery Mills, Rossville, Ga.; J. P. Voorhees, New York selling agent, and Byron G. Moon and H. P. Lehmann of Byron G. Moon Co., Inc., merchandising-advertising counsel to the group.

Two New Knit Underwear Bulletins Sent to Retailers

Two attractive underwear bulletins, one relating to children's models and types, bearing the title "What's New in the Stores," and another on the subject of men's knit underwear, under the title "Why Style in Men's Fall Knit Underwear?", issued respectively by the Division of Design and the Division of Merchandising of the Associated Knit Underwear Manufacturers of America, have been distributed to buyers in the leading style retail dry goods and department stores of the country, as well as to others who might be interested.

Navy Dept. Asks for Bids on Cotton Goods

On Oct. 22 the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., will open bids on the following items: 64,000 yd. unbleached cotton sheeting, single cuts, type C, 36 in. wide; 500,000 yd. drill, bleached and shrunk, 29 in. wide, type A; 75,000 yd. drill, bleached and shrunk, 32 in. wide type B. The first item is Schedule 1887 (Construction and Repair) and the last two are Schedule 1911 (Supplies and Accounts).

Parkdale Mills Acquired by J. L. Robinson and Associates

Control of the Parkdale Mills, Inc., Gastonia, N. C., was transferred Sept. 30, from the Gray-Separk interests to J. Lee Robinson and associates. Mr. Robinson has been president of Parkdale Mills, Inc., since the corporation's organization in 1916 and he will continue in that capacity. Fred L. Smyre, treasurer of A. M. Smyre Mfg. Co. of Gastonia, succeeds J. H. Separk as secretary and treasurer of the Parkdale mill, while Marshall Dilling was named vice-president.

The Parkdale mill is equipped with 15,000 ring spindles and 7,500 twister spindles and is engaged in the production of 30s and 70s combed peeler yarns. There is a total of $500,000 capital stock of the company outstanding.

60 Firms to Display Lines at Chicago Outerwear Show

It was announced this week that about 60 members of the National Knitted Outerwear Association and of the Knitted Outerwear Selling Agents Association will exhibit their lines at the Great Northern Hotel in Chicago the week of Nov. 18.

The Federal Trade Commission has approved the national association's request for a trade practice submittal, which will probably be held during the exhibition, according to Ellery B. Gordon, secretary.

The selling agents will meet at the hotel Sunday, Nov. 17, to elect new officers. Present executives of the body consist of Herman Heller, president; Jack DeWilde, vice-president, and Clifford Smith, secretary and treasurer.

Army Asks For Undershirt and Cravat Bids

PHILADELPHIA.—Depot Quartermaster, U. S. Army, will receive bids Oct. 15 to supply them with 164,918 summer undershirts, flat knit, to conform with specifications 6-41, size 34, and 21,830 prs. drawers, size 30. On Oct. 16 they will open proposals to supply them with 24,236 black silk cravats, manufactured in accordance with specifications 7-10.

Spiral Knit Guild Now Being Formed

Hosiery Manufacturers Meet in New York to Make Plans for New Association

Promotion of spiral knit stockings of superfine quality which will conform with rigid standards to be determined, has been decided as the main objective of the merchandising-advertising campaign to be conducted by the proposed organization of women's fine gauge spiral knit hosiery manufacturers. These stockings will carry an identifying trade-mark that will be fully protected against infringement, and membership will be restricted to producers having 300-needle or finer machines.

The new organization has tentatively been named "The Spiral Knit Hosiery Guild." Promotors of the Guild met Sept. 26 in New York. The session was closed and was held in the offices of Scott & Williams, Inc. It was presided over by Chairman D. L. Galbraith, president of American Textiles, Inc., Bay City, Mich.

Three plans of organization procedure particularly adaptable to the requirements of the spiral knit industry were presented to the committee for consideration. It is understood that the program includes a licensing and labeling

Natural Blending Texture— Greater Durability

—just two of the reasons why leading manufacturers prefer our spun silk for decorating their fine worsteds and woolens.

100% Pure Silk

Silk in its most economical form

Resist, Extra Fast and
Regular Dye Colors

American Silk Spinning Co.

Providence, R.I.

NEW YORK OFFICE
1 MADISON AVENUE

FABRICS

Generally Good Week For Cotton Goods

Price Status Strengthened in Several Lines—Active Print Cloth Week—Low Colored Goods Prices

Last week's business in cotton goods was generally satisfactory, with large sales in both gray and finished fabrics. Reports from different selling houses vary, and it is apparent that not all are sharing in the improvement. This serves to continue the irregular surface appearance of the market.

September Results: Reports of September sales from selling centers show a marked improvement from the preceding month. Gains run from 15 to 33%, the latter figure being that of the Hunter Mfg. & Commission Co., who add that their sales for the first three quarters of 1929 are larger than for any year with the exception of 1927, and are only 5% less than they were in that big year.

Print Cloths: There was a large turnover in the print cloth division last week and the market closed in a very strong position. The fact that 68x72, 4.75 yd. goods were unavailable before November, and not a great deal even then, came as a jolt to many buyers. This construction was selling at 8⅝c., for November delivery at the close of the week although there were several centers unwilling to go lower than 8¾c. This became the firm market price the opening of the current week. The 80 squares, recently inactive, showed signs of life. Bids of 10⅛c. were generally declined and 10¼c. considered the market.

Sheetings: These slowed up as the week closed although totals for the period ranked second to print cloths. There were several mid-week recessions in the price of 40 in. standard constructions, but these were short lived, and the list now shows unchanged quotations. The 37 in. 48-square, 4.00 yd., at 8¼c. was stated to be attracting greater buyer interest, due to reports that more mills were dropping this number because of the disproportionate selling price when figured on a poundage basis.

Finished Goods: Sheets, pillow cases, towels and bed spreads have been selling steadily. Work shirt chambrays have sold in a large volume, but there is much complaint regarding low prices and lack of reasonable profit. Standard 8 oz. tickings are quoted at 20c. for southern goods, but there are reports that goods are selling for 19 and 19½c. There are one or two centers holding for the list price. However, they admit that a trading position would be in order if a large quantity were in prospect.

Cotton Goods Quotations

	Oct. 2	Sept. 25	Oct. 3, 1928
Spot cotton, N. Y.	18.95c.	18.85c.	19.35c.
Print Cloths			
27-in., 64x60, 7.60	5¼–5⅜c.	5¼–5⅜c.	5¼–6¼c.
38½-in., 64x60, 5.35	7¼c.	7⅛–7¼c.	7⅞–8c.
39-in., 68x72, 4.75	8⅝c.	8⅝c.	9–9¼c.
39-in., 72x76, 4.25	9⅛–9¼c.	9⅛c.	9¼–9¼c.
39-in., 80x80, 4.00	10¼c.	10¼c.	10⅜c.
Brown Sheetings			
36-in., 56x60, 4.00	8⅛c.	8⅛c.	9c.
36-in., 48x48, 3.00	10⅛c.	10⅛c.	10⅛–10⅛c.
37-in., 48x48, 4.00	8¼c.	8¼c.	8⅛–8¼c.
Pajama Checks			
36½-in., 72x80, 4.70	9⅛–9¼c.	9⅛c.	8⅛–8⅜c.
36½-in., 64x60, 5.75	7⅛c.	7⅛c.	7⅛c.
Miscellaneous			
Drills, 37-in., 3 yd.	10⅞–11c.	10⅞c.	11c
Denims, 2.20	16.33c.	16.33c.	17c.
Tickings, 8-oz.	20–21c.	20–21c.	21–22½c.
Standard prints	9⅛c.	9⅛c.	9c.
Eastern staple ginghams, 27-in.	10c.	10c.	10⅛c.

Low Stocks of Desirable Worsteds

Active Spot Call for Dark Browns and Blues—Interest in Clear Finished Goods

The recent warm weather served to put a damper on what had been an active wool goods market. There has been a spirited call for browns for immediate cutting, but buyers now find the market almost bare of suitable goods. There remains a great deal of spot interest and the general impression is that stocks of worsteds, from the medium priced up to the better grades, are low. The best deliveries offered by many are five to six weeks, which will enable customers to get in on the late fall and early winter demand. Besides the spot call for dark browns, buyers are also interested in plain shades of blue for immediate delivery.

Cheviots: Both wool and worsted cheviots are poor, and declining rapidly according to one seller. Nub effects and tweeds for sports use are selling in a promising way, but for everyday business wear, worsteds are now in the lead by a wide margin. The latter can be purchased for a few cents a yard more and are easier to handle besides giving better wear.

Clear Finished Goods: Clothing manufacturers are taking a greater interest in clear finished materials, and twist cloths and gabardines are selling in good volume. The manufacturer is attracted to these cloths because the problems of tailoring are greatly simplified by the way these materials hold their shape and press.

Sharkskins: In contrast to a year ago, sharkskins and birdseye weaves have practically disappeared as far as the mill is concerned. Garments made from these fabrics are still in demand, but mills have very few looms on such numbers.

Prints Favored in Winter Chiffons

Palm Beach Fabrics Selling Steadily—Metals and Velvets Quieter

Activity in the broadsilk market is becoming centered upon two divisions—staples and such lightweights as chiffon, for wear in the warm weather states. The mills producing quality fabrics are enjoying a fair business in chiffon prints, but this demand is still in its early stages. The tone of the market is satisfactory, though no high-pressure buying is noticeable at any end.

Chiffons Selling Steadily: The Palm Beach chiffons, recently opened by New York weavers, are selling steadily. They have not gone as fast as was hoped, but each week shows an increase in orders, and manufacturers are satisfied with the outlook. The color trend is toward purple shades, and floral designs. Cutters bought steadily all week. The orders were small, for the most part, and spot shipment was the rule. There is a good quantity of Palm Beach fabrics on hand, as the mills have been turning them out rapidly; weavers are looking for a more active demand this month, but also are watching their output.

Metals: Demand for metallic fabrics has slackened considerably. Several of the brocades were being sought this week, especially certain attractive yellow numbers. The conservatively-toned metals were quiet.

Velvets Quieter: The active interest in transparent velvets has abated somewhat. Producers of cotton-back and silk-back piles report steady buying, though mostly small orders. Rayon piles are difficult to get, in some cases; one leading mill is sold out on all rayons.

Trade Awaits October Showings: A number of showings of new winter fabrics are scheduled for this month, and cutters and piece goods buyers are showing an inclination to hold up buying until they see the new offerings. Cheney Brothers will display a group of new numbers Oct. 15, and this event is awaited with considerable interest.

Little Burlap Trading

Burlap markets were quiet at midweek with little trading in spot or futures. Calcutta was closed and houses there cabled an unchanged to slightly higher price condition.

The 8 oz. 48s for spot, two weeks and October shipment were 6.35c.; November-December, 6.30c.; January-March, 6.20c. The 10½ oz. 40s for spot and two weeks were 8.10c.; October, 7.85-7.90c.; November-December, 8.05c.; January-March, 8.00c.

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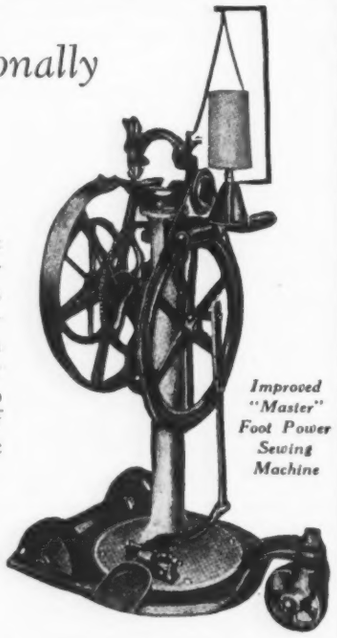

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FINANCIAL

No Definite Trend in Textiles

Loring Group May Absorb Cohn-Hall-Marx —Amoskeag Co. Earns Substantial Net

BOSTON, Oct. 2.

THERE has been no important change in the trend of textile share values since the recent general decline in other classes of listed securities started, but the fact that textile share values have either held their own or advanced slightly in the interim, is fairly convincing proof that they were previously on a rock-bottom basis. Even the American Woolen issues are practically unchanged for the week, the only decline being that of ⅝ points in the common to 15½. On the local exchange Amoskeag is up ¼ point to 16½, Pacific is off 1 point at 32 and Bigelow-Hartford common is up 2 points at 94. At today's auctions Farr Alpaca was unchanged at 101, Ludlow Associates was off 1 point at 167, Arlington was off ¾ point at 25, while the Associated Textile Co. was unchanged at 35 and Newmarket at 51 was up 2¾ points.

Amoskeag Co. Report

Amoskeag Co., which is the holding company for the Amoskeag properties at Manchester, N. H., reports for the fiscal year ended June 29 last a net profit of $717,043, as compared with a net for the 13 months ended June 30, 1928, of $775,151. The gross income for the last fiscal year was $1,103,352, while interest and expenses aggregated $332,084 and income taxes, $54,225. The company declared preferred dividends during the year of $416,250 and common dividends of $280,395, leaving a balance for surplus of $20,398. The latter companies with a net profit after taxes, interest, dividends and expenses of $173,331 for the 13 months ended June 30, 1928, and with a net profit of $350,358 for the fiscal year ended May 30, 1927. The company's balance sheet as of June 29 last compares with that of June 30, 1928, as follows:

ASSETS	June 29, 1929	June 30, 1928
Liberty bonds	$10,315,100	$14,763,600
Amoskeag Mfg. 6% bonds	3,607,300	3,606,900
Other securities	4,175,164	9,187,411
Cash	34,147	121,999
Total	$18,131,711	$27,679,910
LIABILITIES		
Notes payable	$1,250,000	$9,973,098
Res. for shareholders	15,847,940	17,124,062
Profit and loss	495,049	474,543
Investment res.	538,722	.....
Advance payments	.....	108,207
Total	$18,131,711	$27,679,910

Loring Group Seeks Converting Unit

United Merchants & Manufacturers, Inc., the cotton manufacturing and converting organization headed by Homer Loring of Boston, which already owns a large interest in the Cohn-Hall-Marx Co., cotton goods converters, New York City, is offering to exchange for each share of the latter stock one share of a newly created issue of 6% class A stock, $50 par, and one share of United Merchants & Manufacturers, Inc., common stock, the offer to expire October 20. It is reported that more than 70% of the outstanding stock of Cohn-Hall-Marx Co. have signified their desire to exchange their shares. When United Merchants & Manufacturers, Inc., in October, 1928, acquired a large interest in Cohn-Hall-Marx Co., the majority of the stock was placed in a voting trust for a term of 10 years, but this voting trust agreement has been terminated by the voting trustees.

The new class A preferred stock will consist of 70,000 shares of $50 par entitled to non-cumulative dividends of $3 annually, and will be convertible share for share at any time into common stock. Upon completion of the new financing United Merchants & Manufacturers, Inc., will have outstanding $4,500,000 of 6% cumulative preferred; $4,000,000 of cumulative convertible preferred, Series A; $3,500,000 of $50 par 6% preferred A stock (the new issue) and 429,839 shares of no par value common stock.

U. S. Finishing Co. Earnings

President Henry B. Thompson of the U. S. Finishing Co., announced at the directors' meeting last week that the company's earnings for the eight months ended Aug. 31 was the best for any similar period since 1923, and the third best eight months in the history of the company. He also described the outlook for the last four months of the year as good and probably slightly better than last year. In addition to the declaration of the usual quarterly dividend of $1.75 on the preferred stock, the directors at the recent meeting declared a cash dividend of 50c. and a stock dividend of 1% on the new no-par common stock, both payable Oct. 15 to stock of record Oct. 7.

Botany Reports Decreased Deficit

Botany Consolidated Mills, Inc., and its subsidiary, Botany Worsted Mills, Passaic, N. J., for the six months ended June 30 last reports a net deficit, after interest, depreciation, inventory adjustment, etc., of $568,086, as compared with a deficit for the first six months of 1928 of $862,959. Including the Federal tax refund of $645,962 the company had a total income before deductions of $1,011,067, and a net profit before interest and depreciation of $365,104. Net quick assets as of June 30 aggregated $10,236,215, as compared with $11,251,112 as of Dec. 31, 1928, the decrease being due to inventory adjustment; the latter aggregated $941,656 and was entirely due to the decline of wool prices since the first of the year. Since the end of the last fiscal year and up to Aug. 1, the outstanding 6½% bonded debt has been decreased $450,000 on basis of par value of the bonds.

Boston Stock Auctions

The following sales of textile shares were made at Wednesday's auctions:

Shrs.	Mill	Par	Price	Change
25	Ludlow	100	167	— 1
50	Berkshire Associates, com.	...	35	— 3
10	Dwight	25	12½	— ½
10	Farr Alpaca	100	101	.....
21	Potomska	100	37½–36½	.....
26	Union Cotton	100	47	—11
10	Richard Borden	100	4½	— 3½
5	Boston Woven Hose, com.	...	95	+ 2½
25	Merrimack Hat, com.	100	68½–69½	+ ½
90	Connecticut, com. A	...	50c.	+10c.
150	Arlington	100	25	— ¾
10	Hoosac, pfd.	100	40	—16
250	Associated Textile	100	35	.....
30	Newmarket	100	51	+ 2¾
712	Total			

Textiles on N. Y. Exchanges

The following are the highs, lows and last sales of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Oct. 2:

	High	Low	Last Sale
Belding-Heminway	9¼	9¼	9¼
Blumenthal, pfd.	85	83½	8½
Botany A	6½	6	6½
Cannon	44	42	42¾
Collins & Aikman	39¾	36	39
Consolidated Textile	2½	2	2
Courtalds, Ltd.	16½	16½	16½
Duplan Silk	20¾	20½	20¾
Durham Hosiery	4½	4	4
Durham Hosiery, pfd.	44	44	44
Gotham Silk Hosiery	33½	29	30
Kayser, Julius	51¾	49¾	50
Kendall, pfd.	....	....	....
Mallinson	17	15¾	16
May Hosiery, pfd.	29	29	29
Mohawk Carpet Mills	70	64½	65½
Munsingwear	54	52¾	52¾
Pacific Mills	33¾	31½	31½
Phoenix Hosiery	21	21	21
Real Silk Hosiery	74¾	70¼	74
Real Silk Hosiery, pfd.	....	....	....
Tubize	350	335	350
United Piece Dye	39¾	35	35
Van Raalte	41	40	40
Van Raalte 1st pfd.	....	....	....

Slight Advance in Southern Mill Securities

CHARLOTTE, N. C., Sept. 28.—The general average in bid price of 25 common stocks of southern cotton mills registered a slight advance of 16c. per share for the week ending today according to the weekly summary as furnished by R. S. Dickson & Co. The figures compiled show the closing bid for the week at $89.48 as compared with $89.32 for the previous week.

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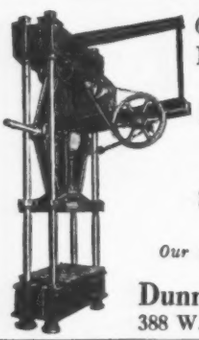

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COTTON YARNS

Large Combed Orders Placed

Lower Prices Stimulate Buying by Mercerizers

PHILADELPHIA.

INTEREST this week has been centered in the combed section of the market, it being estimated that more than five million pounds of two-ply combed yarns had been sold during the first few days of the week following the reduction in prices announced by combed spinners Monday. Immediately following the reduction large buyers, who had been inactive for a long period, came into the market and covered their requirements well ahead.

Prices of 60s-2, mercerizing twist, were reduced two cents, bringing this count down to the new level of 64c. from which mercerizers have a trade discount deducted. This new level for combed yarns, according to reports in the trade, permits mercerizers to cover the processed yarn business which they took early in September at prices which will net them a reasonable profit. It is believed mercerizers covered their needs well ahead at the lower basis early in the week.

How long the new and lower prices will remain in force is being debated and the general opinion is they will not be current for more than two weeks as the lower level has caused buyers to cover their needs so far ahead, that spinners have all of this little or no-profit business they care to take. In view of this predictions are being made that spinners will soon restore prices to their former level of 66c. for 60s-2. Buyers evidently realized this and placed healthy orders the first few days lower prices were made effective.

This is the first large volume of business two-ply combed spinners catering to the mercerizers have secured since the early part of this year, and the main reason mercerizers were able to buy at the lower figures was due to the fact practically all two-play spinners of this type yarns were in need of business to run on even reduced operating schedules. In view of this they decided it was more advisable for them to reduce prices and obtain volume business on which to run for the balance of the year than to close their plants.

There was little change made in single combed yarns used by knitters. This group of spinners has been enjoying active business during September and was in a more favorable position to withstand pressure from large buyers than the two-ply group, although fine counts of single were lowered to the new basis for two-ply. Coarse counts were changed little, remaining at 42c. for 18s which has been the price quoted by majority of spinners. Large knitters have been buying ahead during recent weeks and single combed spinners are well sold in most instances.

Carded Qualities Quiet

There has been little activity in the carded section this week and trading is continuing on the same basis that has been noted since the September crop report was issued. Before that time trading was active. Since the report buyers have been on a severe hand-to-mouth basis and this policy has been followed this week. Prices are steady and spinners are not willing to shade prices appreciably to attract business but there are distributing houses that have been selling half to a cent under spinners level.

Although new business has been of

Cotton Yarn Quotations

Carded—(Average Quality)

Double Carded Weav'g and Knitt'g Yarn 2c. to 4c. Higher According to Quality

SINGLE SKEINS OR TUBES—(WARP TWIST)

4s to 8s	$0.30½–$0.31	20s	$0.34½–$0.35
10s	.31 – .31½	24s	.36½– .37
12s	.31½– .32	26s	.38 – .38½
14s	.32 – .32½	30s	.39 – .39½
16s	.33 – .33½	40s extra quality	.52 – .53

TWO-PLY SKEINS AND TUBES

8s-2	$0.30½–$0.31½	26s-2	$0.38½–$0.39
10s-2	.31½– .32	30s-2	.40 – .41
12s-2	.32 – .32½	36s-2	.44 – .45
14s-2	.33 – .33½	40s-2	.47 – .48
16s-2	.33 – .34	40s-2 high break	.51 – .52
20s-2	.34½– .35½	50s-2	.54 – .55
24s-2	.37½– .38½	60s-2	.62 – .63

SINGLE WARPS

10s	..... $0.31½	24s	$0.37 –$0.37½
12s	..... .32	26s	.38 – .39
14s	..... .32½	30s	..... .40
16s	$0.33½– .34	40s extra quality	.52 – .53
20s	.34½– .35		

TWO-PLY WARPS

8s-2	$0.31½–$0.32	24s-2	$0.38 –$0.38½
10s-7	.32½– .33	26s-2	.39 – .39½
12s-2	.33 – .33½	30s-2	.40½– .41½
14s-2	.33½– .34	40s ordinary	.47½– .48½
16s 2	.34 – .35	50s-2	..... .55½
20s-2	.35 – .36	60s-2	.62 – .63

8s-3 and 4-ply skeins and tubes; tinged, .27½–.28; white, .29½–.30; waste, .26½–.27

HOSIERY CONES (FRAME SPUN)

8s	$0.30 –$0.30½	22s	$0.34 –$0.34½
10s	.30½– .31	24s	.35 – .35½
12s	.31 – .31½	26s	.35½– .36½
14s	.31½– .32	30s tying in	.36 – .37
16s	.32 – .32½	30s regular	.37 – .38
18s	.32½– .33	30s extra quality	.39½– .40½
20s	.33½– .34	40s	.46 – .47

Combed Peeler—(Average Quality)

WARPS, SKEINS AND CONES

	Merc. Tw.	Wp. Tw.		Merc. Tw.	Wp. Tw.
20s-2	$0.45	$0.46	60s-2	$0.64	$0.65
30s-2	.50½	.51	70s-2	.74	.75
36s-2	.52	.52	80s-2	.86	.87
40s-2	.53	.54	90s-2	1.07	1.10
50s-2	.58½	.59	100s-2	1.30	1.40

SINGLES

12s	....–$0.40½	30s	$0.50 –$0.51
14s	.40½– .41	38s	52½ – .53
16s	.41 – .41½	40s	..... .53½
18s	....– .42	50s	.58½– .59½
20s	.43 – .43½	60s	.63½– .64½
24s	.45½– .46	70s	.74 – .75
28s	.48 – .49	80s	.86 – .88

MERCERIZED CONES—(COMBED, UNGASSED)

26s-2	$0.60 –$0.62	80s-2	$1.09 –$1.12
30s-2	.61 – .63	90s-2	1.45 – 1.50
36s-2	.64 – .66	100s-2	1.75 – 1.80
40s-2	.66 – .68	120s-2	2.15 – 2.20
45s-2	.71 – .73	Singles	
50s-2	.73 – .75	30s $0.83	60s $1.07
60s-2	.82 – .85	40s ..... .88	70s 1.22
70s-2	.97 – 1.00	50s ..... .95	80s 1.52

COMBED REVERSE TWIST THREAD YARNS—SKEINS, TUBES OR CONES, 2, 3 AND 4-PLY

	Peeler		Sakelarides	
	Average	Best	Average	Best
24s	$0.55	$0.61–$0.62	$0.77	$0.82
30s	.58	.64– .65	.80	.85
36s	.60	.66– .67	.83	.88
40s	.65	.70– .71	.86	.91
45s	.70	.75– .76	.91	.96
50s	.75	.80– .81	.96	1.01
60s	.85	.90– .91	1.06	1.11

Quotations are average prices of the counts and qualities indicated at the close of business, Oct. 2. They do not cover lower or higher qualities unless specifically noted. For New York Spot Cotton prices, see page 243. For staple cotton prices, see page 125.

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an unimportant nature, specifications are good and shipments during the month of September have been large, being on contracts that were placed in August and the first week in September when manufacturers in many instances covered their needs two months ahead. Deliveries on these orders are being made as rapidly or more so than original contracts specified. There are predictions being made that if manufacturers continue to consume at their present rate important size new contracts will be placed within the next four weeks.

Spinners are quoting 20s-2 warps of ordinary quality at 35½c. while sales have been made a cent lower. Manufacturers are offering to buy in volume at 34c. and 34½c. but find few willing to trade with them at less than 34½c. and a majority are holding at 35c. and 35½c. Plush manufacturers are taking delivery on contracts at a fair rate but have not placed substantial new business this week. Plush quality yarn is quoted on the basis of 36c. to 37c. for 20s-2 and 41½c. to 42½c. for 30s-2.

Manufacturers are not booking a large volume of new goods orders and dealers believe large yarn contracts will not be placed until this situation changes for the better. Carded knitting yarns are in fair request for spot shipment but future contracting has been quiet. Spinners are quoting 31c. basis 10s for ordinary yarn while sales are generally half cent under that figure.

A. K. Winget Heads Gaston County Assn.

Combed Yarn Body Holds Annual Meeting at Gastonia

Arthur K. Winget, textile executive of the Armstrong-Winget group of fine yarn mills, was elected president of the Gaston County Textile Manufacturers' Association, at the sixth annual convention of that organization in Gastonia, N. C., Sept. 24. He succeeds J. H. Separk, of the Gray-Separk group of mills, who has been at the head of the association for the past year.

The organization is composed of, not only the mills in Gaston County, but also the majority of those mills in neighboring counties that are engaged in the manufacture of combed yarns. Headquarters in Gastonia are in charge of Fred M. Allen, secretary of the association.

Other officers elected at the meeting were: W. B. Rhyne, Cherryville, N. C., first vice-president; and John H. Rutledge, China Grove, N. C., second vice-president. Directors named were: E. E. Groves, of Gastonia; A. Q. Kale, Mount Holly, N. C.; C. A. Rudisill, of Cherryville; D. P. Stowe, Belmont, N. C.; Frank W. Van Ness, Tuxedo, N. C., for one year; R. F. Craig, Stanley, N. C.; C. M. Robinson, Lowell, N. C.; G. W. Stowe, of Belmont, C. D. Welch, Cramerton, N. C., and W. H. Suttenfield, Statesville, N. C., for two years; R. Grady Rankin, of Gastonia; Fred L. Smyre, of Gastonia; Charles A. Cannon, Kannapolis, N. C.; J. A. Groves, Albemarle, N. C.; C. C. Armstrong, of Gastonia; and R. B. Suggs, of Belmont, for three years.

Rakestraw Heads Yarn Association

Cotton Yarn Merchants Hold Annual Meeting

PHILADELPHIA.

FRED A. RAKESTRAW, Hyde-Rakestraw Co., was re-elected president of the Cotton Yarn Merchants Association, at their annual meeting held at the Penn Athletic Club, Sept. 27.

Fred A. Rakestraw, Reelected President, Cotton Yarn Merchants Association

Mr. Rakestraw was unanimously chosen for this office for the second consecutive year, the association having grown in numbers and scope of activities during this period. Cotton yarn merchants from all sections of the country were present, the meeting representing practically every large selling house in the business.

Leonard Linkroum, Paulson Linkroum Co., New York, was elected vice-president; F. E. Slack, was again chosen secretary and treasurer. This is the first year in this office for Mr. Linkroum, he assuming the office formerly occupied by E. F. Sherman, John F. Street & Co., Providence, R. I.

Directors to serve two-year terms were elected as follows: Jesse P. Eddy, Tillinghast Stiles Co., Providence; Herbert A. Currier, Waterman, Currier & Co., Boston, and S. M. D. Clapper, Cannon Mills, Inc., Philadelphia.

Directors to serve one year elected were: Eugene Muller, L. P. Muller & Co., Philadelphia, E. F. Sherman, John F. Street & Co., and Ralph Stevens, Stevens Yarn Co., New York.

The business meeting and election of officers was held in the morning immediately followed by a luncheon. In the afternoon automobiles were provided to take out-of-town visitors to the Cedar Brook Country Club, in the suburbs, where golf held the center of interest. Robert J. Mathewson, Standard-Coosa-Thatcher Co., Philadelphia, won the low net prize, having a 75. He was presented with an attractive pen and pencil set.

There was a tie between S. M. D. Clapper, Cannon Mills, Inc., W. W. Forrest, Forrest Bros., Philadelphia and A. M. Shaw, L. P. Muller & Co., Philadelphia, for the low gross prize, each having a 97. As a result it was decided to divide the prize. Dinner was served in the evening.

Dixon Representing Rockfish in Philadelphia

McDonald Dixon has been appointed Philadelphia representative of the Rockfish Mills, Inc., Rocky Mount, N. C., and will cover the trade in Pennsylvania

Leonard Linkroum, Elected Vice-President, Cotton Yarn Merchants Association

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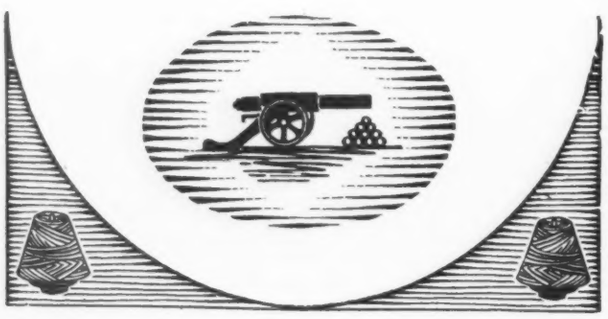

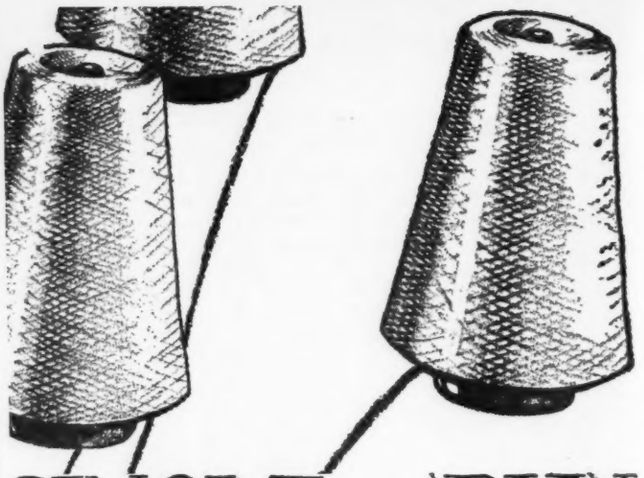

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for them. Mr. Dixon is a graduate of the Philadelphia Textile School and for several years was connected with the Martel Mills. More recently he has been connected with Rockfish Mills, Inc., at their Hope Mills plant. He will make his headquarters in the Drexel Bldg.

Forward Buying Increases

Reflects Increased Buyer Confidence in Current Yarn Prices

BOSTON.—A considerable number of cotton yarn dealers in this and other markets report a marked increase in sales during the closing days of September on both carded and combed yarns, and at full market prices. Deliveries in many instances extend well into next year, and some of the largest users have been covering considerably more than 50% of the requirements for this period. The buying has come from users who have been constantly in close touch with the market, and who apparently are now satisfied that prices of both cotton and yarns are as low as they are likely to be during the next few months, and that in response to active buying both cotton and yarn values are likely to harden.

In spite of the increased volume of business there has been as yet no general advance in prices of carded yarns, although the supply available at recent minimums is decreasing. For average quality of 20s-2 carded warps 35½c. is now the minimum, as compared with occasional opportunities recently to buy as low as 35c.; for 10s frame spun carded cones 30½c. is now the bottom of the market for average qualities as compared with a recent low of 30c. Last week's decline in combed yarns as quoted by leading southern spinners really meant little more than the meeting of prices that have been current for some time and that had covered the bulk of business placed. It has resulted in more confident buying of both combed and mercerized yarns and also in an improved demand for combed specialties.

Aside from the increased firmness of cotton futures the fact that the basis on most white cottons of strict low middling and better grade have hardened 25 to 50 points has tended to increase confidence of buyers in the future price position of both cotton and yarn. A factor of considerable importance, also, is the probability that the supply of tinged cottons will be considerably larger than during the two previous seasons and that the percentage of bright white cottons in the current crop will be smaller than for some years.

Combed Yarns Active in South

Reduced Prices Bring Out Business from Mercerizers

CHARLOTTE, N. C.

COMBED yarns have enjoyed increased activity during the last few days, principally as a result of the recent price reduction by spinners in the Gaston County area. Estimates place the volume of yarns sold by the combed yarn mills at several million pounds, the bulk of which was purchased by mercerizers during the first half of the week.

September had been an unusually quiet month in peeler yarns and spinners felt that reduced prices would bring several of the large mercerizers into the market again and that a good volume of business would be placed on the new price basis which still allows the yarn mills a small margin.

Carded yarn prices remained steady and the demand has continued for fair size shipments for early delivery. While combed yarn prices were somewhat above the quotations expected by mercerizers and other important buyers, the demand for carded yarns was consequently strengthened.

Combed yarns mills are operating at approximately 80% capacity, day and night time operations, 55-hour week, and stocks of gray yarns are very low. Combed single yarns have been moving in fair quantities, a sizeable volume reported to have been placed on 40s at 54c. Reverse twist yarns were quoted at slightly lower prices but only few sales in quantities were reported.

Combed peeler warps for mercerizing were sold on the basis of 63½c. for 58s-2, 73½ to 75c. for 68s and 85 to 86c. for 78s. These prices were much below a satisfactory basis, according to spinners.

Wastes Move More Freely

Values in General Still Below Normal on Cotton Basis

BOSTON.—Good comber seems a little more active, but is difficult to sell at a higher price than 15c. Egyptian comber is also moving a trifle more freely. Peeler strips have firmed up a little and are meeting with more interest. Comber stocks do not seem to be large, but whether this is an actual fact, or due to big contractors being averse to offering materials on current low level cannot be ascertained definitely. October and November are usually active months for movement of this type of materials and better prices may be realized by sellers. Comber value is so abnormally low that contractors

(Continued on page 125)

Buyers Resist Higher Prices

Prices of Two Weeks Ago Might Serve As a Stimulant

NEW YORK—A sustained advance in cotton the forepart of the current week caused several New York carded yarn dealers to advance prices on an average of ½c. over the entire list. Certain commission houses noted increased activity, while others were free to confess they were able to do little at the new price levels. Many spinners, who of late have been bearish to a slight degree, have had a change of heart and firmed up on quotations to a point where their ideas are too high to enable trading. The 20s-2 and 30s-2 warps have been especially affected, mills asking 41 to 43c. for 30s-2 while buyers will not go any higher than 39 to 39½c. The 20s-2 would appeal to buyers at 34 to 35c. but mills are not inclined to sell less than 36c.

A good part of recent business has been placed by customers who had been dickering for several weeks and could wait no longer for supplies. In other instances buyers and sellers are no closer than they were a month ago and potential orders are still up in the air.

The electrical trade was moderately active, buying in 3,000-10,000 lb. lots for fairly prompt shipment. Towel weavers had been buying 20s-2 and 30s-2 warps two weeks ago, but the recent strength of the market has slowed up this buying perceptibly. A few orders have been placed for December delivery and there is a fair inquiry about for November-December shipment, but buyers' ideas are lower than workable levels.

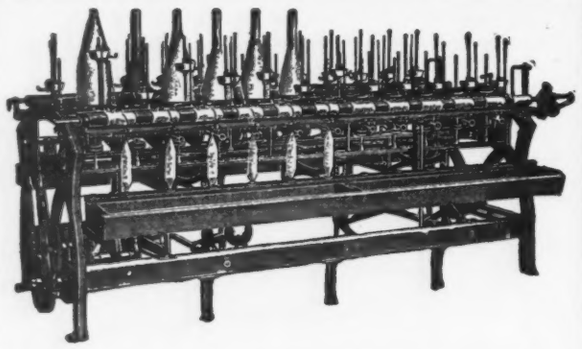
A few combed spinners found it an opportune time to reduce prices a bit on weaving yarns and have noticed a good increase of activity as a result. Negotiations had been going on for several weeks but buyers continued to hold back and were reluctant to operate. Spinners adopted this means to bring the situation to a head and get the orders on the books without further delay.

Elizabeth Mills to Start Up

Following a reorganization of the financial structure of Elizabeth Mills Co., Charlotte, N. C., under the direction of W. C. Wilkinson, president of the Merchants & Farmers National Bank of Charlotte, it was announced that the company's plant, which is equipped with 12,000 spindles on combed peeler yarns, would be reopened Oct. 7 after being closed for almost 12 months. C. B. Suttle, superintendent, stated that machinery has been completely overhauled and that the plant is now in good condition.

E. A. Smith, Jr., Enters Yarn Business on Own Account

E. A. Smith, Jr., formerly with the E. W. Sweet Yarn Co., Burlington, N. C., has become established in the yarn business, with offices at 630 Third Trust Building, Gastonia, N. C.



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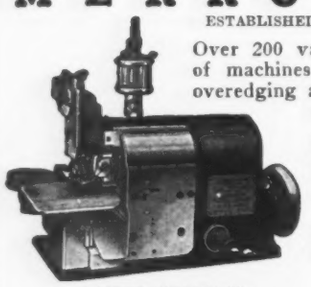

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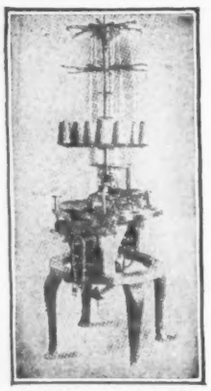

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Cotton Attentive to Storm News

Reduced Crop Ideas Become More General

RECENT nervousness over crop prospects was heightened last week as a result of the tropical disturbance which damaged cotton considerably in the eastern belt. This coupled with the knowledge that hopes for maturing a top crop in Texas as a result of the drouth-breaking rains early in the month, had been definitely abandoned, led to general agreement that the Government report to be issued on Oct. 8 would show some reduction from the September report. This crystallization of sentiment that has taken place in the market is in marked contrast with the uncertainty which prevailed during the middle of last month when opinion was quite evenly divided as to whether the October crop report would show an increase or decrease as compared with the September estimate. While trading has continued to be somewhat restricted, the changing crop ideas have been reflected in strengthening prices since the low levels for the present movement were touched late last week and rallies of about ½c. have occurred since that time.

Possibly the increasing trade interest in both the futures as well as the markets for actual cotton has been the outstanding development as a result of the changing conditions. While heretofore, spinners had shown a disposition to await reactions resulting from southern hedge selling before absorbing contracts, buying support from the trade has been more pronounced and there also have been indications that these same interests were becoming more interested in filling actual needs in the South. The fact that the heavy eastern belt rains reported not only decreased crop prospects in that section, but have also lowered the grade of open cotton in the fields, is leading to some apprehension that there may be a scarcity of desirable grades later in the season.

Supply Gets More Attention

Should the current season's crop prove to be even lower than the 14,825,000 bales estimated in September, it would appear that the world's supply of American cotton in relation to consumption will come in for more attention than at any time since the large crop of 1926. With world's spinning requirements of American now averaging larger than 15,000,000 bales per year, there is a certainty that there will be a further reduction in the carryover at the close of the season, as compared with about 4,500,000 bales on July 31 this year and about 7,500,000 bales at the close of the 1926-27 season. Whereas spinners in the last three seasons have relied on the surplus created by the crop of 1926 to offset deficiencies in the last few growing seasons, it appears that supplies have reached a more normal status. Under these conditions, naturally, the growing crop assumes a greater importance in relation to the world's supply of cotton and in time should be reflected in the price situation. During the height of the marketing season, however, when the weight of hedging from the South exerts undue pressure on the market, factors which over a period of time are influential in determining ultimate price levels are likely either to be ignored or overshadowed by more immediate influences. The forthcoming Government report, on the other hand, may throw more light on the supply situation and, in the case of a reduction in the estimate, might conceivably lead to a trade covering movement.

Three private end-September crop reports issued up to the time of this writing showed a condition ranging from 52.4 up to 53.7, compared with the 55.4, the Sept. 1 Government condition, and 57.5 the average of the private end-August reports. Crop ideas ranged from 14,505,000 up to 14,700,000 in the private reports and represented decreases of 150,000 to 450,000 bales as compared with estimates made by the same authorities a month earlier.

The ultimate effect of the eastern belt storm damage could not be fully ascertained, but private advices indicated that the crop had been reduced in the sections affected. Reductions in the East are believed to offset the more favorable prospects reported in the central belt. Weather west of the Mississippi River and in the Southwest has been favorable for the picking and ginning of the crop, but it is generally doubted that the improvement in the weather in Texas has led to any increase in production there, and some who make a study of the crop are looking for a further reduction in that State as compared with the September estimate.

Price Table

The following table shows Wednesday's closing quotations in the leading spot markets of the country with the usual comparisons:

Markets	Sept. 25	Oct. 2	Change	Last Year	Sales
Galveston	18.65	18.80	+15	18.85	12.992
New Orleans	18.28	18.50	+22	18.65	65.591
Mobile	17.85	18.05	+20	18.45	4.220
Savannah	18.20	18.46	+26	18.45	5.388
Norfolk	18.44	18.63	+19	.....	.....
New York	18.85	18.95	+10	19.35	2.760
Augusta	18.19	.....	.....	18.56	1.890
Memphis	17.20	17.60	+40	18.05	48.255
St. Louis	17.50	18.00	+50	18.25	.....
Houston	18.55	18.70	+15	18.65	131.438
Dallas	17.90	17.90	.....	18.05	123.661

The following differences on and off middling are given as compiled from the report received by the New York Cotton Exchange. The cotton grades marked ** are not deliverable on contract:

	Dallas	Memphis	Montgomery	Augusta	Average
WHITE GRADES					
M. F	1.00†	.90†	.70†	63†	.81†
S. G. M	.70†	.65†	.55†	.50†	.62†
G. M	.45†	.40†	.40†	.38†	.44†
S. M	.35†	.25†	.25†	.25†	.30†
S. L. M	.75*	.65*	75*	.75*	.75*
L. M	1.75*	1.60*	1.50*	1.50*	1.60*
S. G. O**	3.00*	2.50*	2.50*	2.25*	2.50*
G. O	4.00*	3.50*	3.50*	3.00*	3.40*
YELLOW TINGED					
G. M	.50*	.75*	.50*	.25*	.45*
S. M	1.00*	1.15*	.75*	.75*	.92*
M**	1.75*	1.50*	1.25*	1.50*	1.58*
S. L. M.**	2.50*	2.00*	1.75*	1.88*	2.21*
L. M.**	3.25*	3.00*	2.50*	2.88*	3.01*
YELLOW STAINED					
G. M	1.50*	1.40*	1.25*	1.25*	1.42*
S. M.**	2.25*	2.15*	2.00*	1.75*	2.14*
M.**	3.00*	2.65*	2.75*	2.50*	2.79*
BLUE STAINED					
M. G.**	1.75*	1.25*	1.50*	1.75*	1.61*
S. M.**	2.25*	2.00*	2.25*	2.50*	2.25*
M.**	3.00*	2.50*	3.00*	3.50*	2.97*

*Off middling. †On middling.

Cotton Statistical Data

(Fluctuations of Futures)

	Closed Sept. 26	For Week High	For Week Low	Closed Oct. 2	Net Change
October	18.55	19.01	18.35	18.80	+.25
November	18.54	19.00	18.55	18.81	+.27
December	18.60	19.10	18.52	18.87	+.27
January	18.63	19.16	18.57	18.95	+.32
February	18.74	19.22	18.78	19.05	+.31
March	18.87	19.39	18.80	19.16	+.29
April	19.00	19.44	18.95	19.26	+.26
May	19.12	19.60	19.01	19.37	+.25
June	19.09	19.50	19.05	19.29	+.20
July	19.05	19.49	18.94	19.22	+.17

Spot Fluctuations for Week

(Middling)

	New York	New Orleans	Liverpool
Friday, Sept. 27	18.70	18.14	10.20
Saturday, Sept. 28	18.75	18.14	10.16
Monday, Sept. 30	18.85	18.32	10.14
Tuesday, Oct. 1	19.15	18.68	10.29
Wednesday, Oct. 2	18.95	18.50	10.41
Thursday, Oct. 3	18.90	18.45	10.32

Spot Fluctuations and Stocks

	Prices Oct. 2	Stocks This Week	Stocks Last Year
Galveston	18.80	257,821	382,878
New Orleans	18.50	207,760	139,842
Mobile	18.05	41,096	26,429
Savannah	18.46	74,036	39,492
Norfolk	18.63	13,859	12,551
New York	18.95	98,690	12,710
Houston	18.70	414,527	454,127
Augusta	.....	.....	33,298
Memphis	17.60	144,665	108,577
St. Louis	18.00	3,573	1,812
Little Rock	17.50	19,504	14,682
Dallas	17.90	.....	.....

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Large Receipts in South

Cotton Trade Moves but Needs Greater Buying Urge

MEMPHIS, TENN., Sept. 30.—Unusually heavy receipts, 52,586 bales for the week against 29,867 bales last year, are increasing local stocks of cotton rapidly; the outward movement exceeded that of the corresponding week last year by more than 50% and was nearly double that of the year before. Sales were large, approximating the best week of the season last year. First hands are offering freely all lengths below 1 1/8"; these and better lengths are generally held back for better prices. An advance in the December contract, which, together with the current premium of about 100 points, would put middling 1 1/8" well above 20c., would bring out much staple cotton not now offered.

There is a present dearth of low middling and strict low middling, for which grades shippers are anxious. The season's supply of the lower grades will depend on the weather ahead; so far the weather in this territory and in western sections of the belt has favored an unusually high grade crop. September weather in the Atlantics and over a large part of Alabama has been unfavorably wet—torrential rains occurred toward the close of the week over most of the Savannah River basin in Georgia and extended into western South Carolina. Shippers still claim that mill orders are of the hand-to-mouth variety and that mill ideas as to basis on deferred shipments are unworkable and are restricting business.

Basis, first sales, is quoted unchanged from the previous week as follows: Strict middling 1/8" 50 off the December contract, 1" 50 on, 1 1/32" 75 on, 1 1/16" 100 on, 1 3/32" 100 on, 1 1/8" 125 on, 1 3/16" 225 on, 1 1/4" 575 on. Large sales, taken in conjunction with the statement of shippers that they are booking little forward business, indicates that they are buying principally for stock. However, buying activity slackened perceptibly toward the close of the week and there was some suggestion that it was due to September commitments having been covered.

It is quite possible, however, that September commitments were in fact composed in large part of last year's business. The impression prevailed, toward the close of the old crop year, that shippers had been granted an extension of time. Later on, these extensions were mentioned in explanation of the high basis on early receipts; they ceased to affect the basis when the crop started to move in volume.

The weather during the week was highly favorable for the harvest in central and western divisions of the belt; also, favorable for crop progress, subject to the frost date. The weather in the Atlantics was unfavorable for picking and ginnings, impaired baleage prospects and was damaging to grade.

Market Statistics

Basis Middling

	Saturday Sept. 28	Saturday Sept. 21
10 markets average	17.89	17.87
Memphis	17.35	17.25

Premium Staples

First Sales from Factors Tables at Memphis

Grade Strict Middling	Prices Steady
1 1/8-in.	19.70@20.00c.
1 3/16-in.	20.65@21.00c.
1 1/4-in.	24.00@24.50c.

Current Sales

	For Week	Prev. Week	Week Before
Memphis total	41,501	25,514	22,366
F.o.b. included in total	35,153	21,483	20,690
10 markets	386,710	270,884	221,943

Memphis Receipts, Shipments, Etc.

	For Week	Last Year	Year Before
Net receipts	52,586	29,867	31,094
Gross receipts	81,292	47,169	44,559
Total since Aug. 1, net	92,646	48,621	57,770
Shipments	36,616	23,314	19,079
Total since Aug. 1	109,799	96,073	110,600
Total stock	111,499	86,673	92,461
Increase for week	44,676	23,835	25,480
Unsold stock in hands of Memphis factors	22,678	.....	.....
Increase for week	6,678	.....	.....

Staples More Active

Basis Firmer for Forward Shipments—Egyptians Also Firmer

BOSTON, OCT. 2.—Most shippers of extra staple cottons continue free sellers for prompt shipment at unchanged basis, but for November and later delivery are much firmer in their price views on nearly everything higher in grade than strict low middling. The latter seems to be due to increased weevil and weather damage to the crop and fear that bright, white cotton in all lengths will be comparatively scarce later on. Spinners have been buying a little freer for prompt delivery, but advance in basis plus the higher futures market have checked demand for November and later delivery. Many shippers want 50 points more for November-December delivery than for prompt shipment, and there is a tendency for premiums on grades above middling to advance. While most shippers are nominally asking 300 points on December for full 1 1/8 in. hard western cotton of middling grade it is possible to buy for prompt shipment 25 points lower, and full basis for a full 1 3/16 in. cotton of middling grade is 400 points on December, with small lots reported available 50 points lower.

The Alexandria market touched its low for the week on Monday when the October Upper contract sold as low as $20 and the November Sak. contract at a low of $31.12. Since then there has been an advance of 70c. in the October contract and of 96c. in the November contract. The December contract at $21.08 has advance 10c. less during the week than the October Upper contract, but the advance in January Sak. was slightly greater than that in the November contract, the former closing today at $32.62. Even at the low basis touched on Monday comparatively little domestic buying of Egyptians was reported, although more interest has been shown since then in high grade Sak.

Current Quotations

Average prices for Oct.-Nov. shipment of middling and strict middling hard western cotton (Government lengths) are as follows:

	Middling	St. Middling
1 3/16 in.	21 1/4 to 22c.	22 to 22 1/4c.
1 1/4 in. to 1 1/2 in.	21 1/2 to 22 1/4c.	22 1/4 to 22 1/2c.
1 5/8 in.	22 to 22 1/2c.	22 1/2 to 23c.
1 3/4 in.	23 to 24c	23 1/2 to 24 1/2c.
1 7/8 in.	28 to 29c.	29 to 30c.

Basis on New York, December, 18.86c.

John Malloch & Co., Boston, quote Egyptian cotton c.i.f. Boston for Oct.-Nov. shipment as follows: "Fully good fair" Sak. 35.60c., up 1/2c. "fully good fair to good" Uppers 23.80c., up 0.45c., off 0.65c. from Sept. 25. They report closing prices Oct. 2 on the Alexandria exchange as follows: Nov. Sak. $32.08, up 47c.; Oct. Uppers $20.70, up 34c. from Sept. 25.

Wastes Move More Freely

(Continued from page 119)

could not hurt themselves very much by sitting on their stocks and that apparently is what they are doing.

Opinions differ to the degree of activity exhibited by the machine waste section of the market. Some houses are doing a fair business in cop and slasher threads and merino threads for packing purposes. The highest price that can be obtained at this time for spooler and slasher waste is said to be 9 1/2c. with colored threads 7 1/2-8c. The Continent has been offering slasher wastes around 10c., but the price is altogether too high to interest American importers. In threads for breaking up it is doubtful whether anything much above 11c. can be obtained at the present time.

Although New York is running ahead in the matter of the import of wastes Boston is more than maintaining itself when it comes to exports. Latest statistics cover the month of July when the total shipment out of Boston was 1,250,000 lb. of which amount 1,100,000 lb. were shipped to England at an average price of 14.8c. per pound. New York exports in the same month amounted to 298,000 lb., at an average value of 13.3c. The largest shipment of 80,000 lb., at 16c. per pound went to Spain.

Current Quotations

	Cents
Peeler comber	14 1/2—15
Peeler strips	13 1/2—14
Sak. comber	13 1/2—14
Choice willowed fly	7 1/2— 8
Choice willowed picker	6 — 6 1/2
Sak. strips	18 —19
Linters (mill run)	4 1/2— 5 1/2
White spooler (single)	10 1/2—11

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BRAND YARN

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For more than two years the American Bemberg Corporation has maintained a complete mechanical and chemical laboratory as a part of its New York office.

During this time hundreds of tests of yarns and fabrics have been conducted by trained research men, and their findings have been passed on to textile manufacturers and to members of the retail trade.

In addition to this laboratory service, our experts in both weaving and knitting are available to cooperate with manufacturers, giving them data on the characteristics of our yarns which may be of aid to them in solving problems involved in the construction and production of fabrics.

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Steady Crepe Yarn Demand

Popularity of All-Rayon Fabrics Helps Movement of 100-40s

A CONSIDERABLE quantity of 1930 business was placed with rayon producers during the past week, the orders coming in about equal measure from knitters and weavers. The trend toward advance buying continues to be one of the features of the market. Manufacturers are having difficulty in getting early shipment of certain numbers that they need for winter production, and, in an effort to avoid repetition of this situation next season, they are already placing orders to cover future needs.

Present demand leans mostly to 150s and 100s and in-between. There is only a fair call for the 75s, the reason being that this denier is used largely for rayon voiles, a lightweight fabric which is mainly a summer proposition. Producers do not look for any real call for 75s until the end of the year. Second quality of all yarns between 150 and 100 are hard to get, and in some cases, they are not available at all.

100-40 Seconds Sold Out

The rapid turnover enjoyed by fabric manufacturers on flat rayon crepe has helped the movement of 100-40s. Weavers were in the market for large quantities of this number during the week, and the rayon producers expect this demand to increase. Second quality 100-40 was completely sold out, one of the leading producers of viscose process yarn reported. Production of first grade has been increased to meet current demand, and is fairly plentiful. However, spot shipment even of firsts is not encouraged. The growing popularity of flat rayon crepe is a source of much satisfaction to the rayon trade. This fabric is 100% rayon, and is one of the most attractive numbers in the all-rayon field at present. Weavers find it a ready seller.

The market entered the tenth month of 1930 under good auspices. September business was generally declared to have been excellent; sales were well ahead of the same month last year. The general feeling of the trade is that the current active demand will continue, with normal fluctuations, until the end of the year. The approach of Christmas has had its usual effect of stimulating manufacturer confidence. With the passing of the peak of Christmas production which will come in November, there may be a reaction, but it is not expected that this will be more than a temporary lull.

Domestic Rayon Quotations

(Producers' List Quotations)

Viscose Process

Denier	Filament	First Quality	Second Quality
75	18	$2.35	$1.50
75	30	2.45	1.35
100	18	1.95	1.60
100	40	2.00	1.65
125	18	1.45	1.25
125	36	1.50	1.30
150	24–32	1.15	1.10
150	36	1.20	1.15
150	60	1.35	1.30
150	75	1.50	....
170	24–27	1.15	1.10
170	60	1.35	1.30
200	30	1.10	1.05
200	60	1.30	1.25
300	40–60	1.00	.95
400	72	1.10	.95
450	54	1.00	.95
600	72–96	1.00	.95
900	100–144	1.00	.95

Nitro-Cellulose Process

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
35	$3.50	$3.25	125	$1.45	$1.25
50	2.75	2.50	140	1.15	1.10
75	2.35	1.65	150	1.15	1.10
100	1.95	1.60	160	1.15	1.10
			175	1.15	1.10

Cuprammonium Process

Denier	Filament	Price	Denier	Filament	Price
15	25	$4.15	40	30	$3.15
25	25	3.65	52	30	3.00
30	25	3.40			

[Due to diversified offerings prices for higher deniers are not listed.]

Acetate Process

Denier	Price	Denier	Price
45	$3.00	120	$2.30
55	3.00	150	1.90
75	2.55	200	1.90
100	2.40	300	2.20

Rayon Waste

Open bleached waste	$0.35–$0.36
Open unbleached waste	.32– .33
Bleached thread waste (mfrs.)	.17– .18
Colored thread waste	.... .10
Colored clips	.... .10

Converted Rayon Waste

Bleached tops	$0.60 –$0.61
Unbleached tops	.52 – .56
Bleached noils	.... .26
Bleached garnets	.36 – .44
Unbleached garnets	.30 – .32
Colored garnets	.23 – .25

Italrayon Corp. to Handle Italian Rayon Firm's Line Here

Berizzi Brothers have incorporated a new company by the name of Italrayon Corp., which shall handle, throughout the United States and Canada, the products of the Commerciale Italiano Seta Artificialo. They were appointed U. S. agents for this company, as announced in TEXTILE WORLD on Sept. 21. The latter company is one of the largest rayon producers in Italy with mills in Naples, Rome, Rieti and Padova. Some of their mills specialize in fine sizes and multifilaments and, also, make a delustered yarn. The Italrayon Corp. has offices at 95 Madison Ave., New York.

Rayon Waste Lull Brings Price Cut

Decline of 3 to 7 cts. Helps Dealers to Move Stocks— Rally Looked for Shortly

The weakness noted in the rayon waste market in September became more pronounced as the month ended, and effected a general scaling down of prices. Manufacturers and converters had held to a more or less stand-off policy, and stocks were beginning to accumulate. The result was that prices fell quite sharply; the cut averaged 3 to 5 cents, though in the case of bleached thread waste, a 7c. drop was registered. The decline awakened interest in the consuming market, especially at the woolen and worsted end, and these manufacturers did some active buying. Dealers cleared much of their surplus at this low figure, and they are fairly satisfied with the situation. They look for a reaction against the low prices within two weeks, due to the fact that waste supplies are limited.

Converters were active, and reported steady buying of tops. Their chief complaint was that the high prices of waste had narrowed their margin, though they admitted that the current reduction did much to improve this situation. The tone of the market, both at the waste and the converting end, is confident. It is felt that manufacturers are about ready to stock up for winter output.

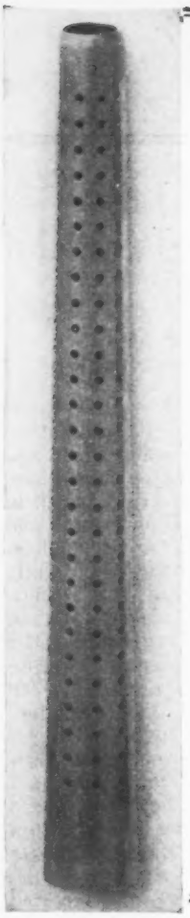
Baron Kohorn, Rayon Engineer, to Arrive Oct. 8

Baron Kohorn, owner of Kohorn & Co., Chemnitz, Germany, widely known manufacturers of rayon machinery, will arrive in this country next Tuesday on the steamship "Olympic." Baron Kohorn has been a leading figure in rayon engineering for many years and his company has extensive rayon engineering interests in various European countries. The firm recently secured a large contract with the Russian Soviet Government.

The firm's rayon machinery plant at Chemnitz is one of the largest in Germany. The Kohorn company also has erected rayon plants in England, Japan and other countries. The total output of rayon in plants built by Kohorn is 400,000 lb. daily.

Manufacture of Artificial Fabrics in Australia

A plant capable of producing 1,250,000 yards of leather cloth and 500,000 yards of rubber cloth annually was formally opened at Sunshine, Victoria, on July 18.—*Dept. of Commerce.*



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SILK AND SILK YARNS

Raw Silk Again Declines

Recession of 5 to 10c. Expected To Be Followed by New Drop

RAW silk continues its downward slant. There is little except emergency buying. Each drop in prices, instead of stimulating demand, seems to act the other way; it strengthens the resolve of manufacturers to wait longer in the hope of a further decline. Prices were off 5 to 10c. this week, and the indications are that they will hit a new low next week; importers themselves conceded the probability of a drop of 10c before Oct. 15. Various elements contribute to the current weakness, the chief one being the hold-off policy of manufacturers. The consuming market was somewhat pinched last month by the high prices, and they cut down buying which in turn weakened quotations. With the continued drop, demand has not improved, however, and such orders as are placed are marked by haggling; manufacturers are persistently fighting for lower prices.

Looking beyond the current softening there seems to be a trend toward stabilization. The decline in prices will help the market at both ends, provided it does not go too far. Importers seem confident that there will be no prolonged weakness. The consuming market has bought little raw silk during the last month, and will shortly be obliged to buy, irrespective of prices, it is argued. When the looms begin to get active on spring goods—sometime within the next few weeks—the demand is expected to pick up. Importers look for steady buying from then through to the Christmas holidays.

The current Jewish holidays, together with a weakness on the Yokohama bourse helped to soften the New York market. Broadsilk mills placed a limited quantity of business this week, and helped the turnover of fabric yarns. Knitters were indifferent, especially the hosiery trade which showed a tendency toward bargaining. Hosiery producers are ready to buy, but at their own prices.

Trading on the Exchange was spotty, with little real interest shown at any time. Futures were decidedly weak on Sept. 26, though they rallied the next day. They dropped again early this week, and stayed down.

Silk and Silk Yarn Quotations

Thrown Silk

(60 day basis)

Japan organsine, 2 thd. grand XX in skeins	$6.45
Japan organsine, 2 thd sp. crack in skeins	6.30
Japan crepe, 3 thd. grand XX in bobbins	6.60
Japan crepe, 3 thd. sp. crack on bobbins	6.25
Japan crepe, 4 thd. crack on bobbins	6.20
Canton crepe, 3 & 4 thd. ns. 14/16 on bobbins	4.90
Tussah tram, 2 end on cops	2.75
Hosiery tram, 3 thd. Japan XXX	6.90
Hosiery tram, 5 thd. Japan G XX	6.15
Hosiery tram, sp. crack XX	5.96
Hosiery tram, crack XX	5.80
Hosiery tram, XX	5.70

Spun Silk Yarns

Terms: 2% 10, net 60

40/2	$4.35	60/2	$4.65
50/2	4.55	62/1	3.60

Raw Silk

(60 day basis)

Japan filature, grand XX, 13/15	$5.45
Japan filature, sp. crack XX, 13/15	5.25
Japan filature, crack XX, 13/15	5.15
Japan filature, XX, 13/15	5.20
Japan filature, best X, 13/15	4.95
Japan filature, X, 13/15	4.90
Canton filature, new style, 14/16	3.85
Canton filature, new style 20/22	3.50
Tussah filature, 8 cocoon	2.20
Grand XX (Yellow) 20/22	5.05
Grand XX (White) 20/22	5.05
Sp. crack (Yellow) 20/22	5.00
Sp. crack (White) 20/22	5.00
Crack (Yellow) 20/22	5.00
Crack (White) 20/22	5.00

National Raw Silk Exchange

	Close Sept. 25	For the Week High	Low	Close Oct. 1	Net Chg.
September	5.06	5.13	5.03	....	.....
October	5.07	5.10	5.01	5.03	—.04
November	5.07	5.08	5.00	5.05	—.02
December	5.06	5.09	4.98	5.05	—.01
*January	5.05	5.06	4.98	5.00	—.05
*February	5.05	5.05	4.99	5.00	—.05
*March	5.04	5.05	4.99	4.99	—.05
*April	5.04	5.05	5.00	4.99	—.05
*May	....	5.05	4.98	4.99	.....
*June	....	....	....	....	.....

Sept. 25 to Oct. 1—Total contracts, 855 (127 old; 728 new). Total number of bales, 7,885; total approximate value, $5,243,525.

*New 10-bale contract basis.

Thrown Silk Weakens, Prices Decline 5c.

Recession Follows Further Let-Up in Buying—Lull May Last 10 Days

The indifferent attitude of manufacturers to thrown silk became more pronounced this week, and prices dropped 5c. on most grades. There was little buying—less even than last week. Broadsilk manufacturers confined themselves very rigidly to emergency requirements, and orders were hard to get. Hosiery knitters also showed but little interest. Such current business as was reported was split between crepe and organzine yarns, and always for spot shipment.

The throwsters do not look for any improvement for 10 days at least. The uncertain condition in the raw silk market, and the general expectation among manufacturers that raws will go further down, is responsible for the "hold off" policy at the thrown silk end, they say. It is not believed that manufacturers can carry on very long without stocking up, however. Neither weavers or knitters—except perhaps, the hosiery group—have any great quantity of thrown silk on hand. Throwsters believe that whether the expected decline in raw silk develops or not, the manufacturers will be obliged to buy soon, in order to keep their mills running.

Spun Silk Demand Grows Day by Day

Consistent Improvement Cheers Spinners—Wider Interest in Yarn is Noted

Woolen and worsted manufacturers and silk weavers all showed increased interest in spun silk yarns during the week, and there was steady buying. The amount of inquiries was in excess of orders, and spinners are much encouraged by this sign; they believe the woolen and worsted trade, especially is now getting ready to stock up for winter output. Current demand leaned to 62/1, though the higher priced yarns also were in fair call. Demand showed a gradual day by day growth, and the market looks for spirited buying in the next two weeks. Orders were larger than hitherto, and buyers showed a confidence lacking earlier in the season.

Woolen and worsted fabric manufacturers have been encouraged by the movement of their first fall lines, and are now shaping their winter schedules. They look for a satisfactory season, and are understood to be ready to buy yarns on a good scale. Spinners were satisfied with the current situation and the outlook. The market is firm, production is keeping close to demand, and prices are steady.

It was commented in the trade this week that the recent tub silk name contest had already helped to stimulate demand for yarns. Orders and inquiries were being received from divisions of the consuming market which hitherto had been little interested in spun silk.

Silk Exchange September Turnover Doubled

Transactions on the National Raw Silk Exchange for September, up to the close Sept. 27, averaged over 1,000 bales of raw silk futures daily. This is more than double the average daily turnover of 410 bales in September last year.

At the current rate of activity, transactions on the Silk Exchange are running at an annual rate of approximately $198,900,000.

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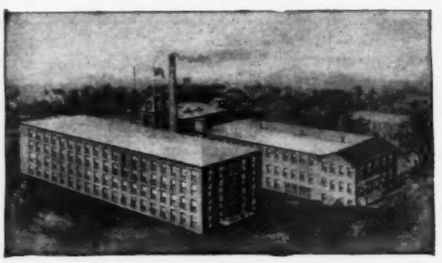

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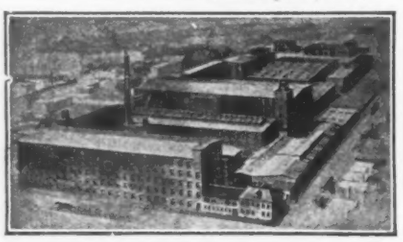

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222 West Adams Street CHICAGO, ILL.

WORSTED YARNS

Yarns Active in September

Cool Weather Causes Knitting Yarn Spurt

PHILADELPHIA.

SEPTEMBER witnessed the improvement in sales of worsted yarns that had been anticipated, it being the best month so far this year spinners of outerwear yarns have experienced and one of the best months of the year so far as specifications are concerned for men's wear counts. New business in men's wear mixtures has not been large but of fair proportions. In this connection it is interesting to note that much of the business on spinners' books will have been completed by the middle of October.

For this reason there are indications there will be another wave of buying by men's wear manufacturers during the next six weeks. These mills are enjoying a run of good business at the present time, which has been in evidence for the last month or more and they have been specifying actively on yarn contracts placed with mixture spinners last June. While there has been no rush for immediate delivery, as has been seen in the knitting section, steady progress has been made within the month.

Men's Wear Mills Busy

Several men's wear manufacturers have been running night shifts and the others have been running full in the day time in order to get out the orders as quickly as goods buyers have been specifying. This has been felt by spinners and all specializing in men's wear yarns, Bradford and French, have been operating on more active schedules during the month of September.

September has been an outstanding month for outerwear counts, the most active of the year with practically all and one of the best months within recent years with many spinners. Both single and ply yarns, Bradford and French, have been active, both in respect to new business and specifications on old contracts. Spinners having stocks which accumulated during the summer have been able to ship most of them out during the last five weeks.

The delivery feature of this business is the most impressive, all buyers wanting delivery from stock and when this can not be given the order is usually lost. Demand for outerwear counts started quickly and the main reason for the rush was the spell of cold weather in the eastern sections early in the month. The weather has advanced demand for outerwear counts at least a month and indications are this spurt will carry well into October.

Immediate Shipments Wanted

While there has been forward contracting by outerwear manufacturers bulk of orders specify immediate delivery, goods buyers wanting to get knit goods on retail shelves as quickly as possible. Rush specifications were particularly noticeable in yarns to go into ladies' ensembles and sweater coats. There has been active buying of bathing suit yarns, single and ply, but delivery on these yarns is not rushed.

Stocks of 2-40s, Bradford and French, going into ensembles have been depleted and spinners have been able to sell this count at higher prices because of this condition, sales being reported this week at the $1.82½ to $1.85 level, two and half cents above the former market figure. Ordinary outerwear counts are selling on the basis of $1.30 for 2-20s, 50s, or $1.47½ dyed. There are several jobbers who are taking business at $1.45 dyed but these are not numerous and other jobbers have been able to sell two and half cents higher.

Yarns spun from medium wools are strong while there has been little strength apparent in finer grades.

Worsted Yarn Quotations

(Corrected Close of Business Wednesday)

Bradford System

2-12s, low, com. (36s)	$1.00 -$1.05
2-16s, low com. (36-40s)	1.05 - 1.10
2-20s to 2-24s, low ½ (44s)	1.15 - 1.20
2-20s to 2-26s, ½ bld. (46-48s)	1.25 - 1.30
2-26s to 2-30s, ½ bld. (48s)	1.37½- 1.40
2-30s to 2-32s, ½ bld. S. A. (46s)	1.35 - 1.40
2-32s, ½ bld. (48-50s)	1.45 - 1.47½
2-20s, ¾ bld. (56s)	1.45 - 1.50
2-26s, ¾ bld. (56s)	1.50 - 1.55
2-36s, ¾ bld. (56s)	1.60 - 1.65
2-32s, ½ bld. (60s)	1.65 - 1.70
2-36s, ½ bld. (60s)	1.70 - 1.75
2-40s, ½ bld. (60s)	1.75 - 1.80
2-50s, high ½ bld. (64s)	1.85 - 1.90
2-50s, fine, (66—70s)	1.95 - 1.97½
2-60s, fine, (70s)	2.30 - 2.35

French System

20s, high, ½ bld. (50s)	$1.40 -$1.45
20s, ¾ bld. (56s)	1.47½- 1.50
26s, ¾ bld. (56s)	1.52½- 1.55
30s, ½ bld. (60s)	1.65 - 1.70
30s, fine warp (66-70s)	1.75 - 1.77½
40s, ½ bld. (60-64s)	1.77½- 1.82½
50s, (66-70s)	1.92½- 1.95
60s, (70s)	2.27½- 2.30

Knitting Yarns in Oil (Bradford)

2-20s, low, ½ bld (44s)	$1.10 -$1.15
2-18s to 2-20s, ½ bld. (50s)	1.30 - 1.32½
2-26s, ½ bld. (50s)	1.36 - 1.38½
2-30s, ½ bld. (50s)	1.40 - 1.42½
2-20s, ¾ bld. (56s)	$1.45
2-20s, ½ bld. (60s)	1.65 - 1.67½

French Spun Merino White

30s, 50-50	$1.27½-1.30	30s, 70-30	$1.47½-$1.50
30s, 60-40	1.37½-1.40	30s, 80-20	1.57½- 1.60

Top and Noil Quotations

Tops—Boston

Fine (64-66s)	$1.18-$1.20
Half-blood (60-62s)	1.16- 1.18
High ¾ blood (58s)	1.10- 1.12
Aver. ¾ blood (56s)	1.05- 1.08
Low ¾ blood	1.00- 1.03
High ½ blood (50s)	.97- 1.00
46s N. Z.	.95- .98
46s S. A. and N. Z.	.93- .95
44s S. A. and N. Z.	.85- .87
40s S. A. and N. Z.	.83- .85
36s S. A. and N. Z.	.82- .83

Noils—Boston

Fine	$0.70-$0.73	Low ¾ bld.	$0.58-$0.60
Half-bld.	.68- .70	High ½ bld.	.55- .58
High ¾ bld.	.65- .68	46s	.53- .55
Aver. ¾ bld.	.60- .63	44s	.50- .53

Tops—Bradford, Eng. (Sept. 28)

Fine (70s)	39d	¾ bld (56s)	28d
Fine (64s)	34d	½ bld (50s)	24d
¾ bld. (60s)	33d	Cross-bred (46s)	21½d
¾ bld. low (58s)	31d		

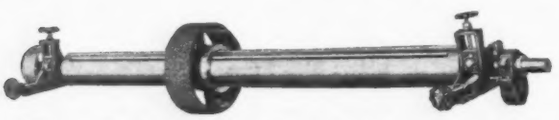
Fine Wool Tops Uncertain in Price

Slow Business in All Grades With Softness in 60s to 70s— Bradford Moves Lower

BOSTON.—The situation in the wool top market is not particularly satisfactory, new business being in very restricted volume. It has not reached any such point of demoralization as is seen in the Bradford market but there is considerable uneasiness over the price future of merino tops generally. Domestic fine wools are easier in price than they were a week ago and while this might be to the advantage of the topmaker still partially uncovered on old contracts it accentuates bearish sentiment when it comes to the placing of new business. Around $1.18 is the highest price anyone will pay for a strictly fine staple top with a half blood at $1.16. The domestic 50s top, favorite with knitting interests, is holding steady by reason of relative shortness of this type of wool in the Boston market.

Business in wool noils has been a trifle brisker during the last few days, but the total movement is altogether below normal and apparently insufficient to do anything more than add a little stability to ruling low levels. The market as a whole is a lifeless affair. Domestic output is still running at a good high rate and although the foreign markets continue to move to lower levels there is little purchasing by importing houses. It is said that the placing of the woolen fabric business in New York has shown some expansion during the last week and that additional movement in this direction is confidently anticipated. If this is true it will before long result in mills coming into the market for additional noil supplies.

This Machine Revolutionized Card Grinding



Roy Chain Traverse Card Grinder is the 1929 refinement of the original invention of B. S. Roy, which revolutionized card grinding.

1929 Specifications—built of finest steel tubing, internal mechanism all steel, heads drop forged, perfectly ground and balanced, thoroughly tested. Aluminum wheels, eliminating excessive weight, make for easy handling.

Advice on grinding always promptly and cheerfully given.

See also CONSOLIDATED TEXTILE CATALOG

B. S. ROY & SON CO.
Established 1868
WORCESTER, MASS., U. S. A.

ROY GRINDERS

Bought on a Basis of Economy

You will find many of the most efficiently operated textile concerns in the country standardizing on Apco Mossberg pressed steel beams and heads.

They are buying on a basis of economy—looking for the greatest length of service per dollar. And in Apco Mossberg equipment they find it.

Let us estimate the cost of putting your beams and heads on a real economy basis.

APCO MOSSBERG CORPORATION
Attleboro, Mass.

All Steel Loom Beam Heads
All Steel Section Beam Heads
Adjustable Heads
Narrow Fabric Beams
Top Beams
Pressed Steel Stampings of all kinds.

Originators and, for 20 years, the leading makers of steel beam heads.

LOGEMANN

Hand-Belt-Electric-Hydraulic

Baling — Presses

From year to year, hundreds of new names are added to the list of LOGEMANN baling-press users in the textile field.

Every year, repeat orders from users of LOGEMANN baling-presses increase steadily, denoting the satisfaction derived from this equipment.

But—

Until every mill-owner, superintendent, and operator, is familiar with the LOGEMANN line of balers for yarn, waste and finished goods, our advertising has not accomplished its purpose.

We solicit your inquiries.

See also CONSOLIDATED TEXTILE CATALOG

LOGEMANN BROTHERS CO.
MAIN OFFICE & WORKS
3100 Burleigh St., Milwaukee, Wis.

Clean Paraffined Strap

makes the Best Textile Shipment

The Signode Tensional Steel Strapping System with its rugged quick acting tools and strong, clean paraffined strap, is best for all types of textile shipments. Remarkable dollar savings, reduction of freight costs, reduction in volume, and elimination of pilfering are a few of the outstanding advantages.

Call for demonstration or let us send you a sample seal and general catalog No. 15

Signode Steel Strapping Company
2620 N. Western Ave., Chicago, Ill., U. S. A.
Canadian Steel Strapping Co., Ltd., Montreal, Quebec
Offices in Principal Cities

SIGNODE

The Sealed Steel Strapping

(We also manufacture round wire tensional reinforcements, all forms of nailed strapping wire tying machines, pail clasps, clutch nails, tag fasteners, etc. Write for general catalog.)

WOOL AND SUBSTITUTES

No Clearing on Wool Horizon

Stabilization Retarded by Depressed Conditions in Foreign Markets

BOSTON.

THE general situation in wool in Boston can hardly be considered satisfactory with the foreign markets pointing downward and evidences accumulating that there was insufficient buying to absorb the large offerings. The cancellation of the Geelong sale and the shortening of the London sales by four days are evidences that, at the moment at least, there is more wool being offered in the foreign markets than can be absorbed. Foreign wools in bond were not helped by the situation in Australia and London and although the Australians are said to be of a better quality than has yet been offered in the foreign markets mill buyers are holding off until it becomes evident that the London and Colonial markets have reached a larger measure of stability.

The situation in fine domestic wools is not altogether to the liking of holders. There has been a large movement of average fine and French combing wools since the first of July and yet the purchasing has been unable to prevent a gradual downward tendency in these materials. In some quarters it is believed that domestic fine wools are near stabilization at current prices and yet during the past week fine staple territory was quoted on a new and lower price level at 88-93c. with French combing wool at 85-88c. Decreasing supplies of ¼ blood wools both domestic and foreign are bringing about a strong price situation. For ½ blood wool there is a better demand than for fine wool.

The National Wool Growers Association are to hold their annual convention in November instead of January as in recent years. The association it is said wants to have as early as possible something tangible to offer growers as a 1930 program, "before the contractors have a chance to beat them to the field." Although the wool trade has gone on record as opposed to the contracting of wool as unsound in business no one doubts that the majority of dealers would plunge into this type of trading if they were sure that it would forestall the development of any grower control that would threaten to dominate the market. In order to qualify for Federal Farm Board assistance it will be necessary for the grower organization to control a minimum of 50 million pounds of wool. The Federal Farm Board will meet in Chicago with wool growers Oct. 4 for the purpose of considering the organization of a national association to handle wool.

The outlook this season for Australian wool growers seems decidedly poor with prices on the average 35% lower than at the opening last season. It is understood that some of big Australian land and produce companies may foreclose mortgages on a number of stations when the present selling season is over. Extreme fluctuations

(Continued on page 137)

Wool Quotations

Ohio, Pennsylvania and West Virginia			
Fine delne	$0.38 -$0.39	¼ blood	$0.45 -$0.46
Fine clthg	.32 - .33	⅜ blood	.43½- .44
½ blood	.44 - .45		
Texas and California			
Texas, 12 months	$0.90 -$0.92		
California, Northern	.85 - .87		
Pulled—Eastern (Scoured Basis)			
A.A	$1.00-$1.03	B-Super	$0.83-$0.85
A-Super	.93- .95	C-Super	.75- .78
Montana, Idaho and Wyoming (Scoured Basis)			
Staple fine	$0.88-$0.93		
Staple fine ½ bld	.93- .95		
Fine and fine medium	.90- .92		
¼ blood	.90- .92		
⅜ blood	.80- .82		
Mohair—Domestic			
Best carding	$0.48-$0.50		
Best combing	.65- .68		
Mohair Foreign (In Bond)			
Turkey fair, average	$0.41-$0.43		
Cape firsts	.43- .45		
Foreign Clothing and Combing (In Bond)			
Australian:		Montevideo:	
70s	$0.77-$0.80	58-60s	$0.39-$0.40
64s	.65- .68	56s	.39- .40
58s-60s	.63- .65	50s	.37- .38
Buenos Aires:			
4s, 40-44s	$0.31-$0.32		
5s, 36-40s	.29- .30		
Foreign Carpet (Grease Basis in Bond)			
China: Combing No. 1	$0.28 -$0.29		
China Filling Fleece	.25 - .26		
Szechuen ass't	.27 - .28		
Cordova	.25½- .26		
Scotch black face	.27 - .28		
East India: Kandahar	.36 - .38		
Vican'r	.41 - .43		
Joria	.41 - .43		
Aleppo	.38 - .39		

Substitute Quotations

Wool Waste	
Lap—Fine white	$1.00 -$1.03
Fine colored	.85 - .90
Thread White Worsted—Fine	.80 - .83
½ blood	.57 - .60
Thread Colored Worsted—Fine two-ply	.48 - .50
½ blood, two-ply	.30 - .33
Card—Fine White	.50 - .53
Medium white	.30 - .33
Old Woolen Rags (Graded for Mfrs.)	
Merinos—Coarse light	$0.07½-$0.08½
Fine dark	.06 - .06½
Fine light	.19 - .20
Serges—Blue	.10½- .11½
Black	.09½- .10
Red	.14 - .15
Knit—White	.42 - .43
Red	.20 - .21
Light hoods	.22 - .23
Worsteds—Light	.07 - .07½
Blue	.11 - .12
Black	.10 - .11

Restricted Activity in Rags and Wastes

Sluggish Situation—Rag Exports Slump—Mill Wastes in All Markets Unsettled

BOSTON.—The general market for reworked wools continues rather unsettled yet receiving some encouragement from New York where it is said that although worsteds are doing better than for several seasons the business being placed in woolens is not far from normal. Volume of new business is showing a slight improvement at unchanged prices. The tariff question has lost all interest at the moment, the situation in Washington suggesting protracted discussion on details with rates in abeyance.

Mixed rags hold their position without difficulty and are firm against all attempts of graders to secure a lower selling basis. Graded materials are out of a line and unbalanced. Graders can sell some stocks at a small profit but on others they barely break even. Better business is looked for during the course of the next month or six weeks.

Both the import and export business in woolen rags is running behind a year ago. General exports from the United States for the period January-July showed a decrease of 7,842,000 lb. as compared with the similar period in 1928. Exports of woolen rags from New York for July amounted to 510,000 lb. the largest shipment 172,000 lb. going to Italy at 4.4c. per pound. Boston exports were 44,000 lb. only, of which amount 43,000 lb. went to England at an average price of 16.2c. per pound.

In the Dewsbury district there has been no material development in regard to the American tariff on woolen rags but it is said that private information has been received to the effect that in the opinion of a considerable section of the American trade it is doubtful whether any actual change will take place.

Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ending Sept. 28, based upon data compiled by the Market News Service of Bureau of Agricultural Economics, Department of Agriculture, are as follows:

	Week Ended Sept. 28	1929	1928
Domestic	1,071,000	186,931,000	192,700,000
Foreign	886,000	81,672,000	76,035,000
Total	1,957,000	268,603,000	268,735,000
IMPORTS AT PRINCIPAL PORTS			
Boston	886,000	81,672,000	76,035,000
Philadelphia	900,000	69,639,000	53,738,000
New York	1,526,000	55,353,000	49,261,000
Total	3,312,000	206,664,000	179,034,000

For Rich and Fast Blacks

NATIONAL DIAZINE BLACK S

A new black of unusual fastness

For the first time a domestic manufacturer is able to offer the fastest to light of all developed blacks: National Diazine Black S Extra.

When diazotized and developed, it possesses good fastness to perspiration, hot pressing, and washing.

A request to any of our branch offices will bring to you complete description of this important addition to our line and instructions for its application.

National Aniline & Chemical Co., Inc.
40 Rector Street, New York, N. Y.

BOSTON PROVIDENCE CHICAGO CHARLOTTE TORONTO PHILADELPHIA SAN FRANCISCO

NATIONAL DYES

NATIONAL N DYES

Mothproof
without special equipment

Larvex does a thorough mothproofing job without special equipment. You merely apply Larvex in the dye kettles where its application is easily controlled and always uniform. Larvex is always positive in its action.

LARVEX *is advertised by radio, in newspapers, magazines*

Women know the full effectiveness of this one nationally advertised mothproofing agent because they use it in their own homes. "Mothproofed with Larvex" makes quick sales in the retail stores. Naturally this advantage is felt by the mills that use this mothproofingmethod. There is profit in it for everyone concerned.

Write today for details and technical information. Newport Chemical Works, Passaic, New Jersey.

Good Workmen Deserve Good Tools

This is why so many mills have standardized the

Wyandotte Quality and Service Textile Alkalies

These special products insure superior results in yarns and finished fabrics.

Ask your supply man for "WYANDOTTE"

THE J. B. FORD COMPANY
Sole Manufacturers
Wyandotte, Michigan

"Tetrakierol"

Reg. U. S. Pat. Off.

Recommended for properly boiling out and bleaching goods containing rayon and colored yarns. . . .

ONYX OIL & CHEMICAL CO., Jersey City, N. J.

Everything for Textile Printers
And for Bleachers, Dyers and Finishers
ENGRAVING MACHINERY AND SUPPLIES
HURLEY-JOHNSON CORP.
25 Walker Street, New York City
Branch Office: 15 Pine Street, Providence, R. I.

DYEING AND FINISHING

The Proposed British Color Council

On Oct. 9, a meeting is to be held in London with the object of establishing the British Color Council. The council will endeavor in the first place to keep all interests concerned in the closest touch with color fashions and will also attempt the standardization of colors. It is also intended to undertake the work of indicating tendencies in shades. There is little doubt that the methods adopted by the United States Color Card Association have met with favor though it is of course felt that in some respects ways which are adopted in the States cannot always be made so successful in a conservative country such as England.

It is intended to substitute for the United States system of a board of directors, a "General Council of Management" of which one-third will retire annually. The promoters say that by placing fashion color determination for the British Empire in British hands it will provide all British manufacturers and distributors simultaneously with early and authoritative information of color tendencies. To this end the council will conduct color research over a wide field and cover all the recognized fashion centers.

Newport Makes Important Changes in Boston

The Newport Chemical Works, Inc., Passaic N. J., has leased a large section of the second floor of the new building at 80 Broad Street, corner of Franklin, in Boston for the housing of facilities with which to serve the northern New England area. Besides a suite of offices, a large section will be used as storage for stocks of dyestuffs and other Newport products used in the district. The new offices were occupied Oct. 1.

W. A. Keating for a number of years manager of the Boston office, recently asked to be relieved of its responsibilities owing to ill health. W. H. Zillessen has been appointed as his successor. Mr. Keating will assume other departmental duties both in Passaic and at the Boston office.

British Dyestuffs Production, 1928

The total production of dyestuffs in Great Britain in 1928 amounted to 50,907,080 lb., representing an increase of more than 11,355,000 lb., or nearly 29% above the corresponding output in 1927, according to compilation of data by the Board of Trade. The increases were mainly taken up in blues and reds, but there was a slight general improvement in respect to every other color. The most notable increase was in the production of vat colors.

A complete report, prepared as the result of investigations conducted by Trade Commissioner Homer S. Fox, London, and Consul A. R. Thomson, Bradford, has been issued as Special Circular No. 282 by the Chemical Division, Dept. of Commerce.

Exports of Nitrocellulose and Acetocellulose Solutions

During the first six months of 1929, the United States exported $330,660 worth of nitrocellulose and acetocellulose solutions, such as collodion (excluding pyroxylin plastics and paper stocks). The United Kingdom continues to lead as a purchaser of these United States products, taking materials valued at $113,753, Canada second with purchases worth $98,041, and Australia third with $45,379. Exports to Chile mounted to $32,136 and to Mexico $23,635, while Germany, formerly a large taker, purchased only $6,823 worth.—*Chemical Division, Dept. of Commerce.*

Dyeing Firms Amalgamate in United Kingdom

Stevenson Brothers Limited, a large Scotch dyeing and cleaning establishment, became amalgamated with other large dyeing establishments in Scotland and England, under the name of the Associated Dyers and Cleaners, Limited. The managing director of the company announced that as few changes as possible would be made in the management of the Dundee business and that the policy of Stevenson Brothers, Limited, will be maintained.—*Dept. of Commerce.*

Carbon Bisulphate Plant Ready

The Stauffer Chemical Co., of Virginia, recently completed its new $250,000 plant for the manufacture of carbon bisulphate at Roanoke, Va. The product is used in chemical plants, such as silk and rayon manufactures, and the daily capacity of the new enterprise, will be 20 tons when a full operation schedule is reached.

Pacific Coast Linen Mills, Vancouver, Wash., will be ready to start operation of their new plant by the middle of November, according to announcement made by Fletcher Linn, president. The retting and scrutching mill of the $400,000 project is 65 x 200 ft. The structure to house the spinning, weaving and twine-making machinery is two stories high, 60 x 160 ft. in dimensions. Machinery is practically installed, and includes preparing and processing devices, wet and dry spinning system containing 3,000 spindles, and 40 modern linen looms.

BUSINESS NEWS

C. H. Draper, Jr. to Head Draper's Spartanburg Sales Office

Clair H. Draper, Jr., will be in charge of Draper Corporation's new sales office in Spartanburg, S. C., scheduled to open simultaneously with the beginning of operations at the new Draper warehouse and supply depot there sometime this month. The company's representatives located in Spartanburg will cover the Carolinas and certain other textile territory in neighboring States.

With the opening of the Spartanburg office, Draper Corp. will operate through three selling divisions, the other two being located in Atlanta, Ga., and Hopedale, Mass. Construction work on the new Spartanburg warehouse is about completed and it is understood that a complete stock of parts is to be carried there at all times, eliminating the necessity of mills in the Carolinas carrying heavy inventories of parts for Draper machinery.

U. S. Bobbin & Shuttle Co.'s Southern Representation at Greenville

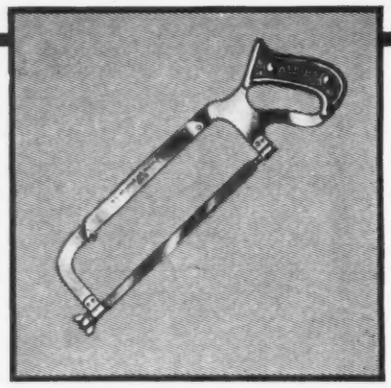
Louis P. Batson has been placed in charge of the U. S. Bobbin & Shuttle Co.'s shuttle sales and service department in the South, with offices located temporarily in the Chamber of Commerce Building, Greenville, S. C. Mr. Batson is well known in textile circles throughout the South and has been southern representative for the Shambow Shuttle Co., of Woonsocket, R. I., for nearly 12 years.

His brother, Davis L. Batson, will be associated with him in covering the trade. These changes are in line with the expansion program of the company, and since the formation of the Jordan Division of the U. S. Bobbin & Shuttle Co., as a result of the recent merger with the Jordan Mfg. Co., Monticello, Ga., the southern territory can be served even more satisfactorily than in the past.

Mixing Equipment Co. in New Plant at Rochester

The Mixing Equipment Co., Inc., New York, pioneer manufacturers of electric portable and side-angular propeller type mixers and agitators under the trade name of "Lightnin," announce that preparations which have been under way for some time are now complete and "Lightnin" mixers are now being manufactured in their new plant located at 1024-1058 Garson Ave., Rochester, N. Y. It is a new building 60x300 ft. of concrete and steel.

The company continues to maintain their present New York office, show rooms and service department at 229 E. 38th St., which they have occupied for many years and carry there a complete stock of "Lightnin" mixers. The main office and



Atkins No. 10 Hack Saw Frame and SILVER STEEL blade: an ideal combination for all hand metal cutting.

If Your Metal Cutting Is Difficult

For those who have difficult metal cutting jobs Atkins SILVER STEEL Hack Saw Blades and Frames will make work a pleasure. These blades are guaranteed to cut at least 6 times more metal and twice as fast as any alloy blade. Many users of Atkins blades get from 10 to 30 times more service than with alloy blades.

For more successful and easy cutting, the No. 10 Hack Saw Frame should be in every Maintenance Department.

E. C. ATKINS & CO.
402 SOUTH ILLINOIS ST. INDIANAPOLIS, IND.

ATLANTA, GA.
CHICAGO, ILL.
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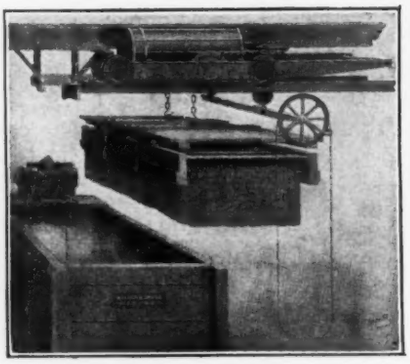
PORTLAND, ORE.
SAN FRANCISCO, CAL.
SEATTLE, WASH.
VANCOUVER, B. C.
PARIS, FRANCE

Simplicity and Durability Coupled with Efficiency



Needed replacement of parts more generally manifests itself while machines are in use — when they are most needed.

Only those fully acquainted with dye house practice and the corrosive action of chemicals used can be expected to safeguard customers in this respect. Nor is it unimportant that moving parts be designed without regard for the time required to make needed repairs.

All our parts that are susceptible to wear are machined separately. They are all interchangeable, are all readily accessible and replacements can be made in a very few minutes.

For skeins and loose or Raw Stocks of every description

Inc. in 1914

WALKER & DAVIS, Inc.
Valetta & Coral Sts., Frankford, Philadelphia, Pa.

Past Performances Prove Dependability of Dryers

It is the past performances that have proven the dependability of Sturtevant Drying Equipment —performances that have improved quality, increased production and effected reductions in cost. The drying problems of many textile manufacturers have been overcome for all time with a Sturtevant installation.

The low operating cost of Sturtevant Dryers together with automatic controls and other individual features give exceptionally high operating efficiency. Our many years' experience in designing and manufacturing drying equipment for the textile trade and our intimate knowledge of the requirements permit us to advise on any drying problem.

Write our Industrial Drying Department for further information.

B. F. STURTEVANT COMPANY
HYDE PARK, BOSTON, MASS.

Sales Offices in all Principal Cities

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Of What Does This Remind You?

SUPPOSE that you had on hand when your first tap was broken a commercial device built specially to remove the broken pieces of tap, a commercial device not a home-made article, would you not have saved a great deal of time?

WRITE US FOR INFORMATION

The Walton Company
310 PEARL STREET, HARTFORD, CONN.

general administrative staff are located at the Rochester plant. The company will also establish service branches in Chicago, San Francisco, and Atlanta carrying an adequate stock. A complete new catalog will soon be available describing fully the many sizes and types of "Lightnin" electric portable and side-angular propeller type mixers showing new designs and applications developed during the year.

OBITUARY

W. G. Kummer

W. G. Kummer, acting president of the American Bemberg and Glanzstoff Corporations, and for some years a leading figure in synthetic yarn development in Europe, was found dead in bed at his home in Elizabethton, Tenn., on Sept. 30. His wrists were cut; a coroner's jury returned a verdict of suicide. He had been in ill health for several years. Mr. Kummer was 54 years of age. He came to the United States in July as acting successor to Dr. Arthur Mothwurff, president of the American Bemberg and Glanzstoff companies. His home was in Barmen, Germany, where he was a director of J. P. Bemberg, A.G., parent company of American Bemberg. He was also active in the associated company, Vereinigte Glanzstoff-Fabriken, A.G., and was associated with British Bemberg Ltd. and Associated Rayon Corp. He was formerly German consul to Portugal.

When his death was first announced, investigations were started on the theory that he was murdered by enemies, as his friends in the plants at Elizabethton expressed doubt that he had committed suicide. Mr. Kummer suffered a sickness two years ago and a nervous breakdown followed, but he appeared to have recovered. When he came to this country in July, a great pressure of work fell to his share. He was credited with having done much toward bringing about peace between the employees and the companies in the recent Bemberg-Glanzstoff strike at Elizabethton. The news of the death brought an expression of sympathy from the Local Textile Union No. 1630, which had figured in the recent labor trouble.

Thomas J. Park

Thomas J. Park, owner and head of the Park Mills, Inc., Sabattus, Me., died Sept. 28 at his home on Minor Avenue, Aburn, Me., following an illness of several months. He had recently been discharged from the Maine General Hospital and was thought to have been much improved. Mr. Park was 56 years of age and a native of Pittsfield, Me. He was for many years manager of the Dunbarton Mills Nos. 1 and 2 at Sangerville and Dexter, Me. From the latter town he went to Sabattus and purchased the Webster Woolen Mill and also the plant of the Webster Rubber Co. Mr. Park has been associated in the business with his two sons, Ralph Park, secretary, and Gordon Park, vice-president and general manager.

Edward K. Powe

Edward K. Powe, aged 66 years, died early Saturday morning, Sept. 28, in a Durham, N. C., hospital. For the last 30 years he had been actively identified with the textile interests of Durham, being general manager and director of the Erwin Cotton Mills Co. He also took a wide interest in civic affairs. He was a native of Morgantown, N. C., and married Miss Claudia Erwin, of that city, a sister of W. A. Erwin and J. Harper Erwin, both prominent in Durham textile circles. She survives together with a son and a daughter. The funeral was held from St. Joseph's Episcopal church, Durham, Sunday afternoon and interment made in the city cemetery.

Arthur Burgess

Arthur Burgess, vice-president and general manager of the Quaker Lace Co., Philadelphia, died Sept. 26, in the Chestnut Hill Hospital. He was well known in the lace trade in this vicinity, having been associated with the Quaker Lace Co., since 1891, when he arrived in this country from England, Mr. Burgess having been born in Nottingham.

William LeBert de Bar, Jr.

William LeBert de Bar, Jr., of the Martha Silk Mills, North Bergen, N. J., died suddenly on Sept. 27 of acute appendicitis. He was 57 years old and had been identified with the textile industry for 35 years. He had recently organized the Jersey Pile Fabrics Co.

Wool Horizon

(Continued from page 133)

in wool values in the past have almost invariably been followed by reactions bringing them back to a normal level. The present slump however seems very far-reaching. Opinions, as to causes are various. The depression is put down by one to the World War, high rate of bank interests, charges and want of credit facilities. Another observer refers to the vagaries of fashion and the competition of rayon and other wool substitutes. Others seek for their solutions in political and international trade hindrances and the lack of purchasing power among the masses. Some again maintain that the industry is passing through an economic evolution upsetting old-fashioned ideas regarding values, the alluring time payment system, applied to articles of luxury, automobiles, household furniture, phonographs, radio sets, and furs, leaving too little for the purchase of clothing.

New Wool Waste Firm Is Formed

T. F. Mullen, formerly manager of the Wool Waste Department of Smith & Cooley and E. D. Royce, having incorporated as T. F. Mullen & Co., announce the opening of an office on Oct. 1 at 45 Main St., Stafford Springs, Conn. They are dealers in wool waste and noils and manufacturers of garnetts. The plant is on River Street.

New Philadelphia Wool Firm Organized

Frank P. Mita & Co., is the name of a new concern located at 113 Chestnut St., Philadelphia, formed to do a general wool and rayon business.

USEFUL CATALOGS

Nickel Cast Iron. Two pamphlets, one introducing the reader to nickel cast iron and the other explaining the properties and applications of nickel and nickel-chromium cast iron, have been issued by The International Nickel Co., Inc., 67 Wall St., New York. In the last-mentioned pamphlet, various applications of these metals are explained, including their use in machinery in general, machine tools, and power.

* * *

Water Wheels. A vertical, direct-connected, hydro-electric installation using the outside or exposed type of gate operating mechanism is described by The James Leffel & Co., Springfield, O., in Bulletin W205. This type of setting is an example of modern engineering practice in hydro-electric construction work. A cross-section diagram aids in the description.

* * *

Pine Oil. The use of soluble, steam-distilled pine oil in the textile industry is explained in a leaflet issued by the Hercules Powder Co., Wilmington, Del. It explains how this product is used as a solvent for gums and waxes, an emulsifier, a wetting-out agent, and a penetrant. It is said to save time by making possible boiling-off cotton in the kier with alkali alone without weakening the fiber.

* * *

New Metal. A new metal known as "Enduro K. A. 2 Steel," which is claimed to be proof, when polished, against water, atmosphere, dilute solutions, alkalies, and even acids at high temperatures and pressures, is announced by the Central Alloy Steel Corp., Massillon, O.; the Ludlum Steel Co., Watervliet, N. Y.; and The Babcock & Wilcox Tube Co., 85 Liberty St., New York, in an attractive booklet just issued. Many uses for the new metal are illustrated and described. It is particularly recommended for chemical-plant equipment. The booklet gives full details of the chemical and physical properties, and shows the results of tests on its resistance to various corrosive influences.

* * *

Oxwelding Aluminum. A booklet issued by The Linde Air Products Co., 30 E. 42nd St., New York, describes in detail the oxwelding process as applied to aluminum and its various alloys. Complete instructions for oxwelding both cast and sheet aluminum are given.

* * *

Jacquard Machines. An attractive catalog intended to reflect the "accumulated experience of over half a century in the building of jacquard machines," has been issued by Thomas Halton's Sons, Philadelphia. In describes, illustrates, and gives specifications for the following jacquards: single lift; rise-and-fall; double-lift single-cylinder; double-lift double-cylinder; double-cylinder rise-and fall; cord-type Brussels; all-wire Wilton; double Wilton; and cross-border. Chapters are also devoted to wire work, cylinders, needle boards, adjustable hammer brackets, cylinder bearings and adjustments, cylinder pull-backs, latch card strippers, side-frame bearings, cylinder motions, fine index machines, and other topics related to jacquard machinery.

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